THE POLISH NAVY 1918–45

From the Polish-Soviet War to World War II

PRZEMYSŁAW BUDZBON ILLUSTRATED BY PAUL WRIGHT

Dedication

To Eve

CONTENTS

INTRODUCTION

- Poland regains independence, 1918

THE POLISH–BOLSHEVIK WAR

- 1919 campaign
- 1920 campaign

POLISH NAVY DEVELOPMENT 1921–39

- The navy from World War I remnants, 1921
- The first naval programme, 1925
- Between the Soviet Union and Germany

THE POLISH NAVY IN WORLD WAR II

- The German–Soviet assault
- Revival: the Polish naval detachment 1939
- The year of dashed hopes, 1940
- The Battle of the Atlantic 1940–44
- The Arctic convoys
- The North Atlantic
- The Mediterranean 1941–44
- Invasion of the continent 1944

CONCLUSION

FURTHER READING

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INTRODUCTION

Poland regains independence, 1918

In the mid-16th century, the Kingdom of Poland and the Grand Duchy of Lithuania formed a federation known as the Commonwealth of the Two Nations. In its heyday, the Polish-Lithuanian Commonwealth stretched from the Baltic Sea to the Black Sea; but it remained purely a land power. The only seaport that traded with the rest of Europe was Gdańsk (*Danzig* in German), situated at the estuary of the largest Polish river, the Vistula. The sole time the country possessed a small navy was during the rule of the Swedish Vasa dynasty at the turn of the 17th and 18th centuries.

The political life of the Polish-Lithuanian Commonwealth – a republic under the presidency of a King – degenerated and, by the end of the 18th century, the country had been partitioned by Russia, Prussia and Austria. Only the defeat of Germany and the disintegration of the Russian and Austro-Hungarian empires in 1918 opened the way again for the restoration of Polish independence. This was concluded by the end of November 1918 and a small inland country emerged headed by Chief of State Józef Piłsudski, who was also Commander-in-Chief of the newly recreated Polish Army. To support Polish claims for access to the Baltic Sea, on 28 November 1918, Piłsudski issued an official order for the establishment of a Polish Navy under the command of Naval Colonel Bogumił Nowotny, a former Austro-Hungarian naval officer. This newly independent Poland had a large group of naval and maritime professionals and enthusiasts; a consequence of the navalism cultivated by the three partitioning powers, which considered naval and maritime expansion to be confirmation of their Great Powers' status.

The new Polish Navy comprised a naval officers' corps which was made up from 72% of the former *Rossijskij imperatorskij flot* (Russian Imperial Navy), 22% from the *Kaiserliche und Königliche Kriegsmarine* (Imperial and Royal War Navy) of Austria and 6% from the *Kaiserliche Marine* (Imperial Navy) of Germany. That many of the officers came from the Russian fleet was not helpful, as the Russian Imperial Navy was not noted for its effectiveness in combat during the 20th century.

Matériel for the Polish Navy was collected by the seizure of former Austrian and German riverine craft and infrastructure. The Vistula River harbour of Modlin (40km north of Warsaw) was handed over to the naval authorities and became the first Polish naval base. The Vistula Flotilla was established with the armed steamer *Wisła* (ex-German *Weichsel* – the name meaning ‘Vistula’ in both languages), commissioned on 8 April 1919. *Wisła* became the first Polish warship.

At the end of 1918, access to the sea was still unavailable for this landlocked country but would be granted by the Great Powers at the Paris Peace Conference of 1919–20.

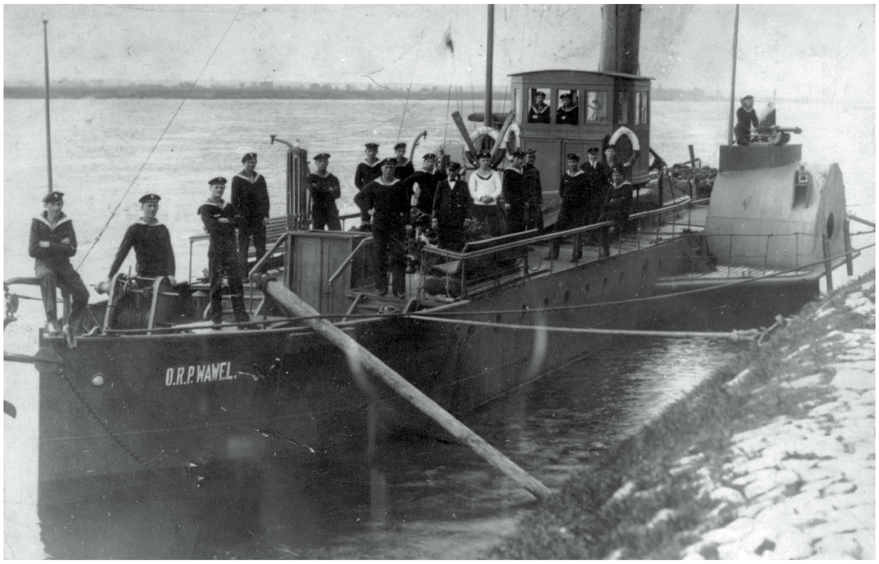
THE POLISH–BOLSHEVIK WAR

1919 campaign

The withdrawal of the German Ober-Ost armies which occupied large territories of the former Russian Empire under the conditions of the Treaty of Brest-Litovsk, signed by the Bolshevik representatives of Russia and the Central Powers on 3 March 1918, caused a dangerously unstable situation in Eastern Poland. Russia and Poland, physically divided by the evacuated territory, decided to take advantage of the withdrawal: the Bolsheviks wanted to seize Poland to pave their way to Germany; the Poles wanted to rebuild their statehood in territories of the former Polish-Lithuanian Commonwealth and create buffer states separating Poland from Russia, be it Bolshevik or Imperial.

Both armies rushed in opposite directions with the line separating the Polish and Bolshevik sides divided in the middle (between Belorussia and Ukraine) by Polesia. Stretched between the Bug and the Pripyat river basins, the land proved difficult for military operations because of its swamps and wetlands. On 19 April 1919, in an attempt to aid transportation in the area, the Pińsk Flotilla (commanded by Sub Lieutenant Jan Giedroyć) was established and three motor launches (*Lech*, *Lisowczyk* and *Lizdejko*) were commissioned, armed with 37mm machine guns. The Bolsheviks sent steamers to the Pripyat, armed with 75mm field guns.

Warm spring weather caused the water-level of the Pripyat to drop and the swamps and wetlands to dry out, allowing the Poles to use their motor launches to oppose the Bolshevik steamers. They played a decisive and victorious role on 3 July, during an operation to capture the village of Horodyszcze. This success convinced the Polish command to allocate the Pińsk Flotilla to combat activities and to increase its strength; however, the only practical way its strength could be increased was to capture enemy vessels. The first opportunity to do this arose two months later, 100km further east when two of the motor launches took part in an attack on the town of Petrykov and forced three Bolshevik armed steamers to retreat. One, named *Struia*, was captured when it ran aground in the confusion. The vessel was recommissioned by the Poles as the ‘battle tug’ K-3, having been suitably adapted for landing operations.



The armed steamer *Wawel*, built in 1893 and armed with two 80mm guns and four machine guns, was mobilized on 2 August 1920 with the Vistula Flotilla and took part in defence of the bridge at Płock. This photograph was taken later in 1920 while *Wawel* was being used as a staff vessel. Note the machine guns on the sponsons. (Marek Twardowski Collection)

The coming winter and the icing up of the rivers ended the 1919 operational season for the Pińsk Flotilla but gave it some time to enhance and strengthen its operational potential. Four armoured river monitors, each with a displacement of 110 tons, were ordered from the Danziger Werft shipyard in Danzig and 11 armed launches were purchased in Austria. In the meantime, the only reinforcement immediately available to the Flotilla was the fitting of five motor launches with light armour.

1920 campaign

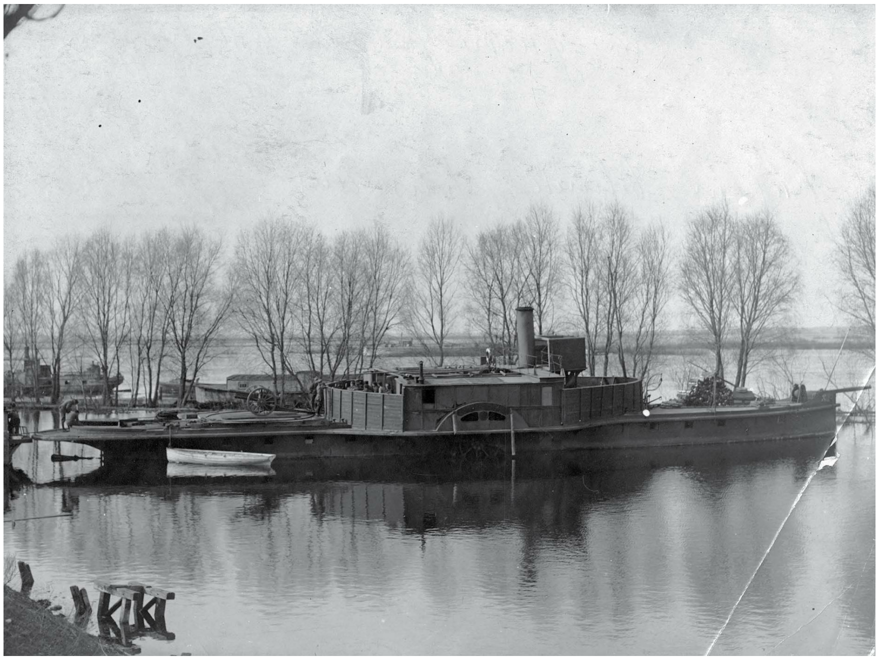
In February 1920, the Bolsheviks began to gather troops in Belorussia under the command of *Komandarm* (Army Commander) Mikhail Tukhachevsky. Their intentions were already known to Piłsudski thanks to the breaking of Russian codes. On 5 March, Polish troops resumed their advance eastwards along the Pripyat and captured Mozyrz, the main port on the river, along with some vessels of the Bolshevik Dnieper Flotilla which spent the winter months there. An artillery battery facing eastwards was established on the riverbanks near Konotopa to block the entry of enemy ships. (Today, the town of Konotopa lies on the border of the ‘forbidden zone’ created in 1988 to separate the territories of Belarus and Ukraine most affected by radioactive fallout from the Chernobyl disaster.)

The Pińsk Flotilla now faced the rest of the powerful Bolshevik Dnieper Flotilla which had several 130mm-gunned and over a dozen 75mm-gunned armed steamers. The ice on the Pripyat began to move on 21 March and, a few days later, three Bolshevik vessels started to penetrate upstream, assisting troops who were attempting to retake Mozyrz. They were, however, successfully opposed by Polish artillery on the riverbanks and three of the Pińsk Flotilla's armed motor launches. The armed steamer *Pancerny 1* (the ex-Bolshevik *Goriachij* captured at Mozyrz) joined the tiny force on 12 April and forced the Dnieper Flotilla vessels downriver to their base port at Chernobyl.

***Pancerny 1 (P-1)* specifications**	
Displacement	120 tons
Dimensions	length: 36.0m; beam: 5.5m moulded, 10.2m over sponsons; draught: 0.7m
Complement	2 officers, 21 men
Armament	1 75mm mountain gun on naval mounting (forward), 1 75mm field gun (aft),
	4 Maxim 7.92mm Model 1908 machine guns
Machinery	1 double-expansion steam engine driving 2 sidewheels
Speed	8.1 knots at 150hp
Protection	wheelhouse and deckhouse sides armoured with 6–8mm steel sheets; the structure protecting the deckhouse forward and aft was built from wooden logs backed by sandbags
Built	1912, named *Trakhtomirov*
Type	river sidewheel paddle tug
Fate	mobilized 12/6/19, renamed *Goriachij* 6/10/19, captured by the Poles 5/3/20.
	recommissioned 29/3/20 with the Polish Pińsk Flotilla.
	scuttled 11/6/20 on the Dnieper River off the Desna estuary.

On 25 April, a general Polish offensive was launched targeting Kiev. The Pińsk Flotilla with an armed steamer, five motor launches and 27 other vessels manned by a total of 345 officers and men, operated on the left wing of the Polish front. The flotilla was detached to the Polish Army's 9th Infantry Division commanded by Colonel Władysław Sikorski, with the objective of capturing Chernobyl. *Pancerny 1* was at the armoury, so the very first encounter with five Bolshevik armed steamers upstream of Chernobyl was fought by three armed launches under the command of Sub Lieutenant Adam Mohuczy. Not only did they avoid destruction, but they also damaged the Bolshevik armed steamer *Prytkij*. The Polish Army troops took

Chernobyl on 27 April while Mohuczy's squadron (*Pancerny 1* and the armed launches) were fighting a battle against five Bolshevik armed steamers, sinking *Gubitel'nyj* and damaging two others.

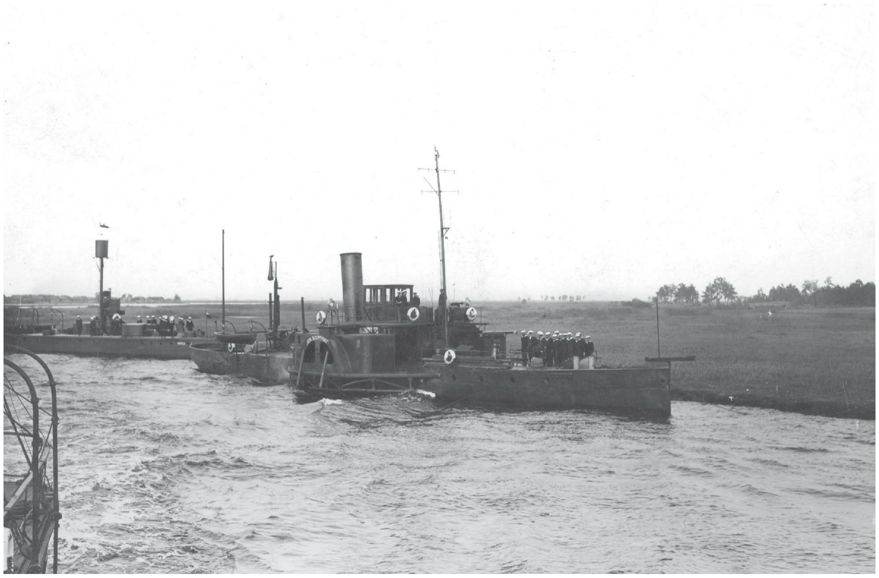


The armed steamer *Pancerny 1* seen in early April 1920 presenting her aft 75mm field gun nicknamed 'Kachna' (Katie). The vessel received a forward 75mm mountain gun on the eve of the battle off Chernobyl. (Muzeum Marynarki Wojennej Collection)

In mid-May the progress of Polish Army troops opened the way to the Dnieper. Two Polish armed launches sailed downstream and reached Kiev on 15 May where they captured 21 Bolshevik steamers. The Bolsheviks remained active, however, particularly south of Kiev, where on 21 May *Pancerny 1* clashed with two armed steamers and captured four other vessels, thus preventing enemy troops from crossing the river.

The Bolshevik counter-offensive in the Ukraine started on 26 May, with an attack by Budyonny's 1st Cavalry Army. Within two weeks the Polish vessels on the Dnieper were cut off from the Pripyat. *Pancerny 1* was busy in defence, escorting Polish Army troop convoys south of Kiev and fighting in the north. On 9 June *Pancerny 1* captured two Bolshevik steamers and the armed steamer *Osetr*, but a general withdrawal by the Polish troops led to *Pancerny 1*, the armed launches and the captured Bolshevik vessels all being scuttled two days later.

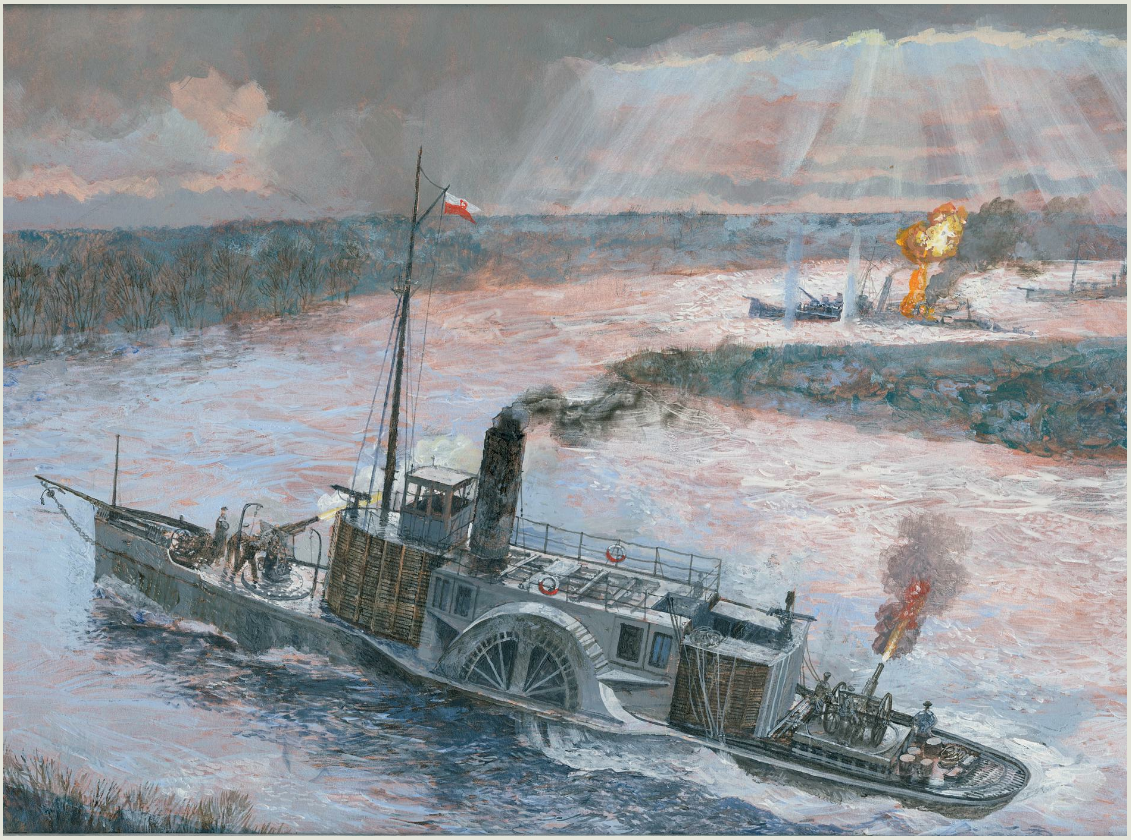
The loss of the Pińsk Flotilla vessels allowed the Dnieper Flotilla to begin operating boldly on the Pripyat. The commissioning of the armed steamer *Pancerny 2* (ex-Bolshevik *Userdnyj*) and three armed launches early in July turned out to be useless however, because of a general offensive by the Bolshevik commanding officer, Tukhachevsky. *Pancerny 2* was covering the retreat of Polish forces until 21 July when she was stranded by the low water-level and had to be burned to avoid capture. The town of Pińsk surrendered a few days later, the remaining Polish vessels being scuttled there as the 25cm water-level in the King's Canal (Dnieper–Bug Canal) was insufficient for them to make their escape.



The armed steamer *Prytkij* was captured by the Poles in 1920 and commissioned as the battle tug H-6. The vessel is seen in 1928 on the Pripyat River as *Generał Szeptycki*, followed by the river monitor *Pińsk*. (Narodowe Archiwum Cyfrowe)

With Bolshevik armies approaching the Vistula, approximately 80km south of Warsaw, the Vistula Flotilla was hastily enlarged by means of requisitions that increased its strength to seven armed steamers and 12 armed launches, deployed between Toruń and Warsaw. Bolshevik troops reached the Vistula on 14 August, but their attempts to cross the river there were stopped by gunfire from the armed steamer *Sobieski.* A more serious situation arose later the same day to the north, when some of the Bolshevik troops crossed the river and organized an ambush with the aim of capturing some Polish vessels. The armed steamer *Moniuszko*, which was busy convoying a tug and barges, came under fire from both riverbanks and sank. The convoyed barges were captured and used to provide regular river crossings. The armed steamer *Neptun*'s crew, who were aware of the enemy's presence, shelled and damaged the captured barges, thus successfully frustrating the river-crossing operation, but the Polish vessel was scuttled hastily afterwards because of rumours of a successful river crossing by Bolshevik troops elsewhere.

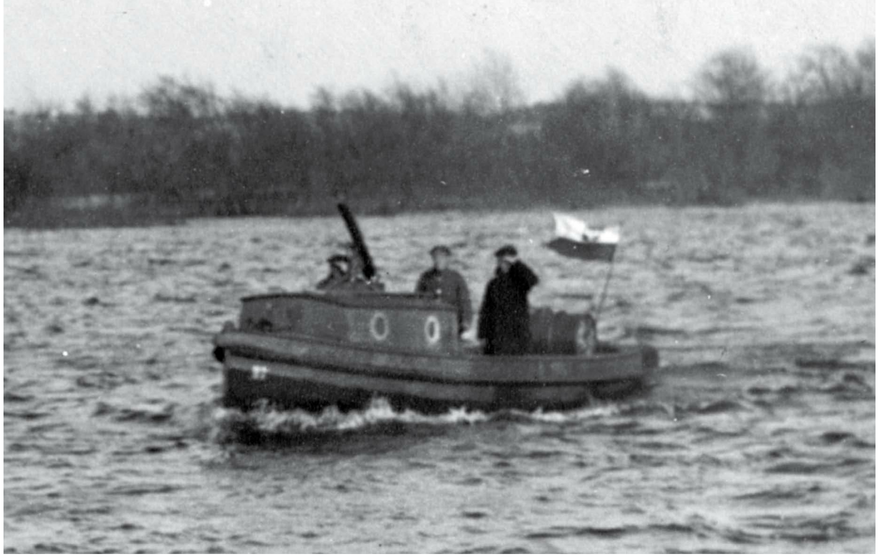
A THE BATTLE OF CHERNOBYL, 27 APRIL 1920



The port of Chernobyl was taken by Polish troops at around 0600hrs. Six Soviet ships managed to escape and joined the Bolshevik gunboats heading downstream and withdrawing from areas already captured by the Poles. To cover their retreat, the gunboats blocked the Pripyat River approximately 8km downstream at what was an excellent tactical position. At this point the Pripyat flows straight for over 5km and is 600–1,000m wide, which gave the gunboats freedom to manoeuvre and good firing positions against any vessels approaching from further upstream. The Bolshevik force consisted of five armed steamers: *Mstitel'nyj*, the river 'battleship' armed with two 130mm naval guns, accompanied by the smaller *Gerojskij, Gubitel'nyj, Molodetskij* and *Mudryj,* each armed with four 75mm field guns.

The five armed steamers were pursued by vessels of the Polish Pińsk Flotilla – the armed steamer *Pancerny 1* and four armed launches – under the command of Sub Lieutenant Adam Mohuczy, the vessels' total firepower consisting of three 75mm and three 37mm guns. As they made their approach they were perfectly illuminated in the morning sunlight. After passing a bend in the river, *Pancerny 1* and MP-1 anchored on the right-side riverbank and a fire-control station was improvised in the crown of a clump of tall pine trees.

Both sides opened fire from the distance of around 4–5km. After two hours no hits had been scored, and Bolshevik salvoes started to frame the Polish ships. In response, they moved forward to shorten the distance and at around 1000hrs scored a hit in the ammunition magazine of *Gubitel'nyj* that started a fire followed by an explosion which sank the ship. The remaining Bolshevik steamers retreated downstream, chased by the Poles. After passing the next bend in the river, the Bolshevik ships resumed fire, but hits on *Mudryj* and *Molodetskij* meant that they had to be taken in tow and the whole Dnieper Flotilla made off downstream. A hit on the bow and shocks caused by the recoil of the forward 75mm gun loosened riveting on *Pancerny 1* which resulted in leakages, and so the vessels of the Pińsk Flotilla abandoned the chase.



An armed motorboat of the Pińsk Flotilla with the Maxim machine-gun mount on the deckhouse. (Muzeum Marynarki Wojennej Collection)

The most important naval action was fought on 18 August when the armed steamers *Minister*, *Stefan Batory* and *Wawel* supported the defence of Płock. The river crossing by Bolshevik troops was successfully prevented but at the cost of the armed steamer *Stefan Batory*, which was sunk by artillery fire.

Warszawa-class river monitors specifications (1922)	
Displacement	110 tons normal
Dimensions	length: 34.5m; beam: 5.1m; draught: 0.8m
Complement	37 officers and men
Armament	2 Schneider 105mm Modèle 1913 guns (built in Italy under French licence)
	4 Maxim 7.92mm Model 1908 machine guns
Machinery	3 Daimler-Maybach engines driving 3 shafts in tunnels
Speed	9.2 knots at 180hp
Protection	turrets: 11mm; deck: 5mm; sides: 6mm
Fuel	9.8 tons of oil

Warszawa-class construction

Name	Builder	Laid down	Completed*	Commissioned	Fate: Polish Navy	Soviet name since 24/10/39	Fate: Soviet Navy
Horodyszcze	Danziger Werft, Danzig, Freie Stadt Danzig	1920	20/8/20	1/9/20	Scuttled 18/9/39	*Bobruisk*	Sunk 31/8/41
*Mozyrz***		1920	10/12/20	10/12/20	Scuttled 18/9/39	*Vinnitsa*	Sunk 16/7/41
Pińsk		1920	20/10/20	20/10/20	Scuttled 18/9/39	*Zhitomir*	Sunk 1/9/41
Warszawa		1920	8/8/20	1/9/20	Scuttled 19/9/39	*Vitebsk*	Sunk 19/9/41

*All were accepted 13/1/21.

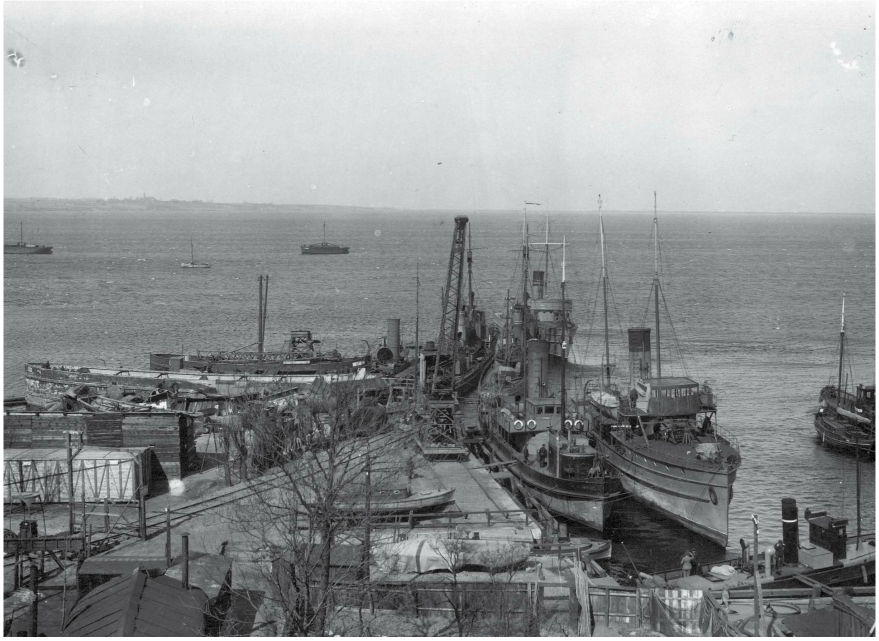
**Renamed *Toruń* in 1923.

At the same time a counter-offensive was launched by Piłsudski which changed the course of the war. By October the Poles had regained a significant part of the territories lost in May. A cease-fire agreement was reached, finalized by the signing of the Treaty of Riga on 18 March 1921. However the cost of peace was that Piłsudski had to abandon his plans for the creation of buffer states between Poland and Russia.

POLISH NAVY DEVELOPMENT 1921–39

The navy from World War I remnants, 1921

The first stage of the Paris Peace Conference after World War 1 was concluded by the Treaty of Versailles, signed on 28 June 1919, which tried to resolve the problem of Poland's lack of access to the Baltic Sea by carving out the so called 'Polish Corridor' between the bulk of Germany to the west and East Prussia to the east. The only problem was that the 42nmi (78km) strip of Polish coastline lacked a harbour of any importance, except for the local fishing ports at Puck and Hela, while Danzig became a Free City under international jurisdiction.



The fishing port of Puck late in 1922, crowded with almost all of the Polish Navy. Berthed at the right side of the pier, looking from the left: first row: the surveying vessel *Pomorzanin* (ex-German *Wotan*) and the gunboat *Generał Haller* (ex-Russian *Lun*); second row: the minesweepers *Mewa* and *Czapla*; in the background: the gunboat *Komendant Piłsudski* (ex-Russian *Vodorez*). (Narodowe Archiwum Cyfrowe)

Poland's claims for a share of the German and Austro-Hungarian fleets were ignored, however the Allies did agree that Poland could have six small, unarmed German torpedo boats on condition that they be used only for border-guard duties with limited armament. It was clear that the Polish Navy and any harbours would have to be built from scratch. The Poles requested help from the British naval mission, which arrived in Warsaw in September 1919.

The first Polish Navy seagoing ship was the survey vessel *Pomorzanin*, commissioned in May 1920. A former German passenger coaster, it had been purchased the previous year to guarantee Poland's obligations to cover the area around the coast with a hydrographic service.

In May 1920 Rear-Admiral Kazimierz Porębski, a former Imperial Russian Navy officer who had been appointed head of the Polish Navy the previous year, issued a plan for a naval expansion programme. The plan was good but Poland's poor economy meant that it was never realized in full. In reality, the Navy was limited to the acquisition of four German FM-type minesweepers bought via Denmark (German export restrictions forbade the selling of ships to Poland) and two gunboats bought from the Crichton shipyard in Abo in Finland. The gunboats had originally been ordered by the Imperial Russian Navy, but their construction had not been completed before the Bolshevik coup of November 1917. In January 1921, eight months later than planned, the four river monitors ordered for the Pińsk Flotilla were accepted. The ex-German torpedo boats finally arrived from Britain in September 1921.

Ślązak-class torpedo boats specifications (1922)	
Displacement	325 tons (*Kujawiak* 330 tons)
Dimensions	length: 61.0m; beam: 6.40m; draught: 2.3m
Armament	2 Hotchkiss 47mm Model 1885 guns
	2 Maxim 7.92mm Model 1908 machine guns
	mine rails
Machinery	2 AEG Vulcan steam turbines driving two shafts; 2 Yarrow boilers
Speed	28 knots at 5,800hp
Range	800nm (1,482km) at 20 knots

Ślązak-class construction

Pt-No 1932–37	Name	Builder	Laid down	Launched	Commissioned: German Navy	Commissioned: Polish Navy	Fate
PH	*Góral** ex *A-80* (Germany, 1919)	A.G. Vulcan, Stettin, Germany	1917	24/10/17	21/12/17	16/9/24	Converted in 1938 to floating fuel tank. Sunk 29/9/39.
KR	*Krakowiak* ex *A-64* (Germany, 1919)	A.G. Vulcan, Stettin, Germany	1917	30/3/18	8/8/18	December 1921	Stricken 7/11/36. Scrapped in 1938.
KW	*Kujawiak* ex *A-68* (Germany, 1919)	Schichau, Elbing, Germany	1917	11/4/17	13/6/17	17/9/21	Converted in 1935 to submarine tender. Sunk 3/9/39.
-	*Mazur*** ex *A-69* (Germany, 1919)	Schichau, Elbing, Germany	1917	28/4/17	4/7/17	Not commissioned	Scrapped.
SK	*Ślązak* ex *A-59* (Germany, 1919)	A.G. Vulcan, Stettin, Germany	1916	13/4/17	9/6/17	15/10/21	Converted in 1937 to target ship. Captured in 1939 by the Germans; sank while being towed.

*Renamed *Podhalanin* on 16/8/21.

**Because of its bad condition, exchanged for V-105 (originally allocated to Brazil).

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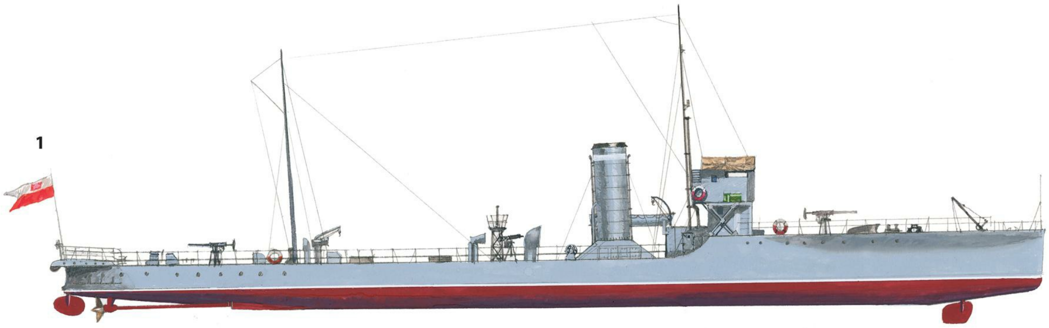

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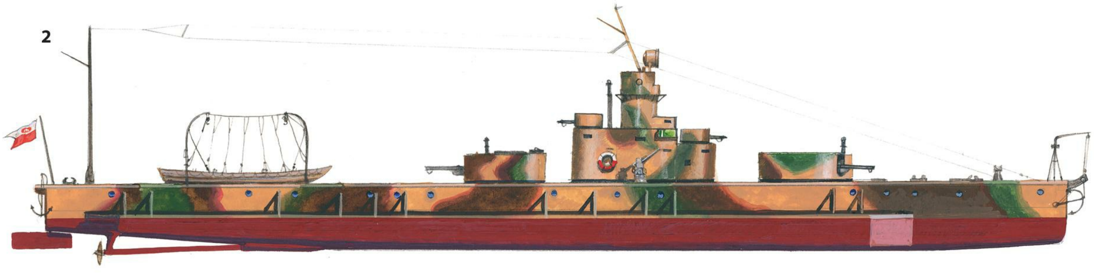


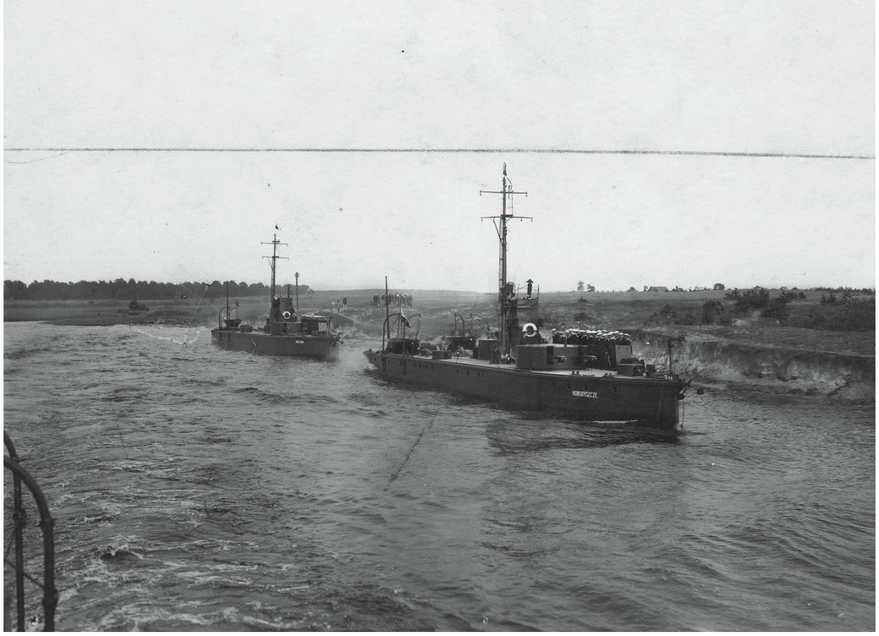
1. *KRAKOWIAK*, ŚLĄZAK-CLASS TORPEDO BOAT IN 1924

These were ex-German A-class single-funnelled coastal torpedo boats designated for operations off the coast of occupied Flanders. Of simple design and wartime workmanship, they were built from cheap, low-quality materials. Therefore, of the five torpedo boats of the A III type allocated in 1920 to Poland as their share of the German Navy, one was rejected because of its poor condition while the other four were in need of extensive renovation. The Poles accepted a proposition to refit all four at the Royal Dockyard at Rosyth instead of at a private yard. When costs escalated, however, the Poles suspended work on two of the craft and towed them to Poland. Together with two much more solid V-type boats, the craft became the core of the Polish Navy. Armed with antiquated Hotchkiss 47mm guns and no torpedo tubes, they were toothless until re-armed in 1925. They were relegated to secondary duties in the mid-1930s.

2. *PIŃSK*, WARSZAWA-CLASS RIVER MONITOR IN 1939

Four armoured river monitors were ordered to attain superiority over the Bolshevik Dnieper Flotilla operating on the Pripyat River. Unfortunately, it took over a year to build these uncomplicated boats of 110 tons, with the result that they were commissioned too late for service in the war. Planned armament of two 88mm SK L/45 guns in single cylindrical armoured turrets on opposite sides was replaced by two 105mm guns during construction. Despite use by the shipyard of armour plates that were thinner by 3mm as compared with the design concept, the craft were overdraught, which was a major drawback to operations in the shallow rivers of Polesia. During their service the craft underwent several refits and rearmaments and in the late 1930s were equipped with removable pontoons on the sides to reduce draught. Following the German invasion of Poland, they were assigned to anti-aircraft defence of major bridges on the Pripyat, but they were scuttled on 18–19 September 1939 in light of the Soviet Union’s invasion of Poland.

A village named Gdynia, located 6km north of the Free City of Danzig's border, was chosen as the site for a new naval base and fisheries harbour. In contrast to Poland's unsuccessful naval shipbuilding programme, the harbour-construction programme exceeded all expectations.

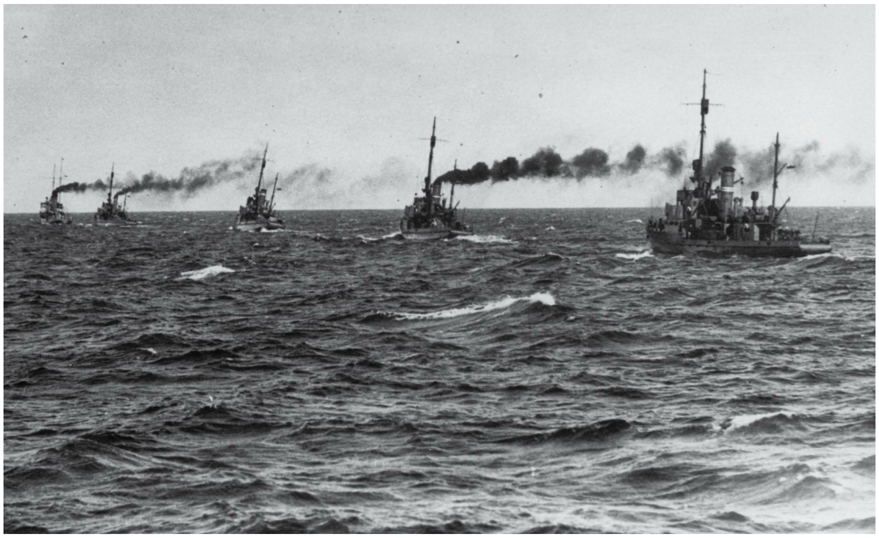


The river monitors *Horodyszcze* and *Warszawa* on parade on the Pripyat River in 1928. The landscape is typical for the Polesia region. (Narodowe Archiwum Cyfrowe)

The first naval programme, 1925

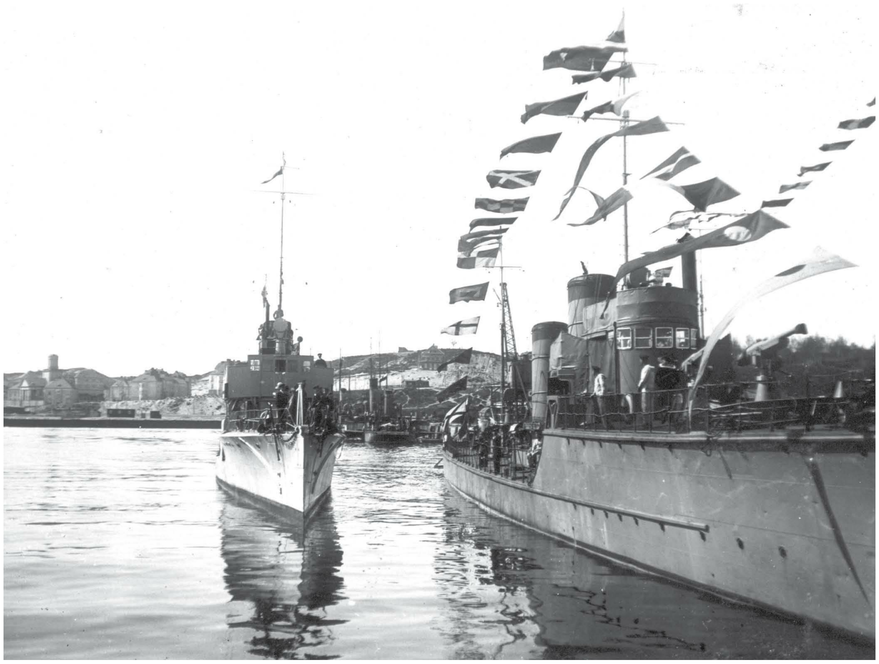
In January 1921 France and Poland concluded a political and military alliance, the French intention being to encircle Germany. Poland's defence strategy, however, was based on the assumption that a war with Bolshevik Russia was more probable than a war with Weimar Germany. As the Poles relied on the support of the French Navy, the Polish Navy was assigned the role of maintaining effective communications with France and defending a suitable naval base. The French knew that in the event of war with Germany, the Polish Corridor could be cut off which made the use of submarines an important option. Various plans were discussed, but knowing the deplorable condition of the Red Army and the Baltic Fleet meant there was no real sense of urgency. It therefore came as a shock when on 6 September 1924 the Soviet battleship *Marat*, assisted by four destroyers, was spotted by a seaplane north of the Polish coast, apparently operating in support of an alleged landing. At the same time the *Reichsmarine* (German Navy) was conducting exercises north of Bornholm, practising a scenario that would block the passage of the French Navy squadron to Gdynia (the purpose of the exercise was confirmed a few months later by French intelligence). Radio communication of both fleets was intercepted.

These parallel exercises by the two most likely enemies of Poland accelerated efforts to increase the striking force of the Polish Navy which, at that time, could only oppose German and Soviet naval forces with a few ships armed with outdated 47mm guns.



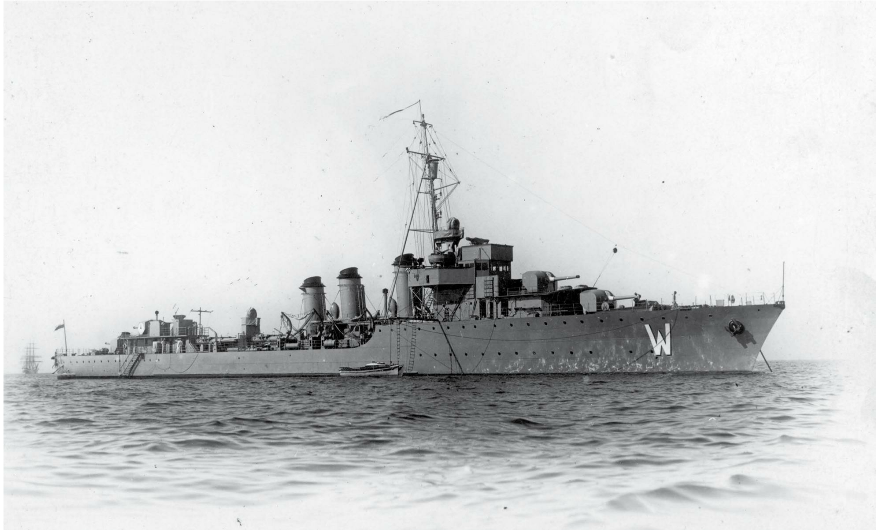
General Haller at the head of the Minesweeping Squadron. Looking from the right: *Jaskółka* (ex-German FM-27), *Mewa* (ex-FM-31), *Czajka* (ex-FM-28) and *Rybitwa* (ex-FM-2). (Author's collection)

Impressed by the Soviet naval demonstration, the Poles asked the British government to sell them several destroyers and submarines. The request was rejected, based on the terms of the Washington Naval Treaty 1922. In addition, the poor relations between Britain and France at that time all but ruled out British support for Poland. The British naval mission in Poland was terminated in early 1921 and replaced by a French naval mission in 1923 – a change which shaped Polish naval armaments acquisitions for years to come.



This photograph was taken at Gdynia naval harbour in the summer of 1931. On the right is the torpedo boat *Mazur* (ex-German V-105; ex-Dutch Z-1) following her conversion to a gunnery training ship. The torpedo boat *Kujawiak* (ex-German A-68) is seen coming to moor alongside. In the background, between the two torpedo boats, can be seen (from left to right) the minesweeper *Jaskółka*, the gunboat *Komendant Piłsudski* and a naval tug. In the left part of the photograph the newly built barracks can be seen. (Author's collection)

Following the British refusal to sell Poland destroyers and submarines, in March 1925 the Council of Ministers approved a programme to build nine submarines (six torpedo-equipped boats of 700 tons and three minelayers of 950 tons) in French shipyards, and funds were allocated to arm the torpedo boats then in service with heavier guns and torpedo tubes. In an ironic twist, the head of the Polish Navy was replaced in May 1925 by Captain Jerzy Świrski – a former chief navigation officer in the Russian Black Sea Fleet.



The destroyer *Wicher* in 1936 after removal of the mainmast and depth-charge throwers and installation of two twin Hotchkiss 13.2mm machine guns on the sponsons of the bridge. The pennant ‘W’ at the bow was removed the following year. (Author’s collection)

In September 1925 the choice of the Augustin Normand group of shipyards for the construction of the submarines was approved by General Sikorski, Minister of Military Affairs, a decision influenced by money and politics. Custom duties imposed by Germany were adversely affecting Poland’s balance sheet, so the Polish government applied for a stabilizing loan from France. The Paris-Bas Bank, a major player in the financing of industrial investments in Poland, along with several members of the French government demanded that the submarines be built at the Chantiers Navals Français (CNF) shipyard at Blainville, of which the bank was a shareholder. Sikorski agreed to place an order with CNF but was hesitant to award the submarine-building contract to a shipyard that had never constructed such a vessel before. At some point during the meeting, he left the room and asked Świrski, who was waiting outside: ‘Which ships are we planning to build next?’ There was nothing planned other than the nine submarines, so Świrski seized the opportunity and immediately asked for two destroyers as well and had them all built at CNF.

Wicher-class destroyers specifications	
Displacement	1,400 tons standard; 1,910 tons full load
Dimensions	length: 107.2m; beam: 10.2m; draught: 3.8m
Complement	155 officers and men
Armament as fitted	4 Schneider-Creusot 130mm Modèle 1924 guns

	2 Vickers-Armstrong Mk II 40mm anti-aircraft guns
	2 triple 550mm torpedo tubes with reductors for 21in and 450mm
	2 Thornycroft depth charge throwers
	2 depth charge chutes under the main deck; 20 depth charges
	mine rails for 60 mines
Machinery	2 Parsons geared steam turbines driving 2 shafts; 3 du Temple boilers
Speed	33 knots at 35,000shp
Fuel	330 tons of oil; range 3,000nm (5,556km) at 15 knots

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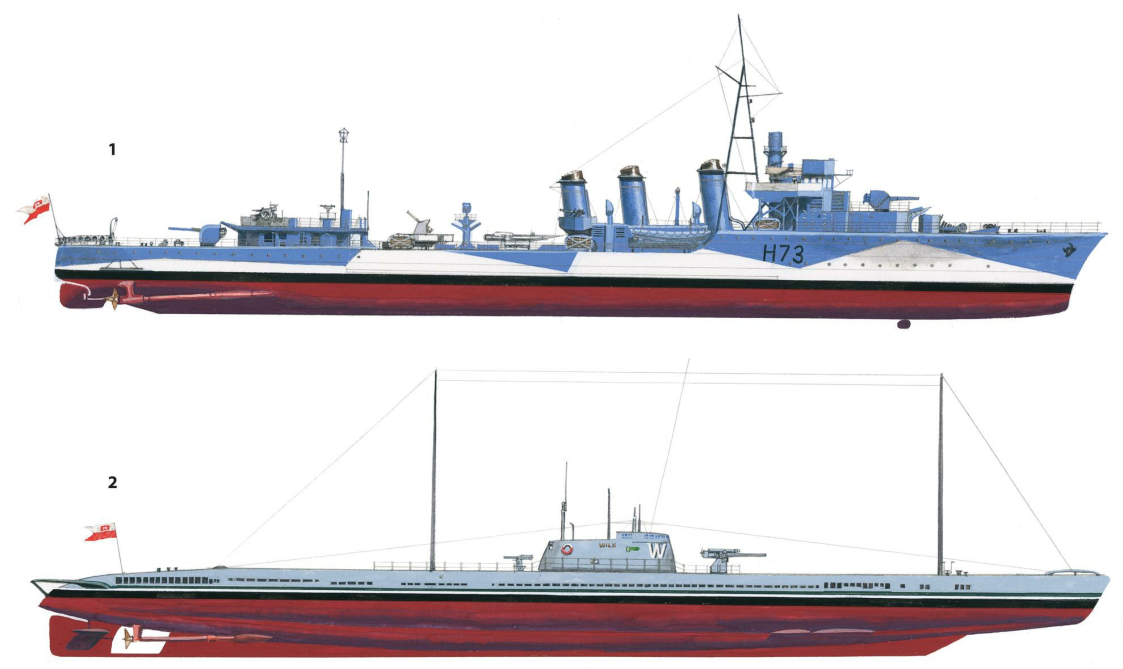


1. WICHER-CLASS DESTROYER: *BURZA* AS OCEANIC ESCORT IN 1943

*Wiche*r and *Burza* were built as modified designs of the French *Borrasque/L’Aroit* class of *torpilleurs d’escadre* (destroyers), the first French post-World War I destroyer design to be built *en masse*. The Wicher-class design was slightly modified to address shortcomings revealed during the first trials of *Borrasque*, the most troublesome being instability. The hull was widened by 1ft and the funnels were shortened and had their prominent caps reduced.

Because of her non-standard French-type armament and machinery, for which spare parts had to be smuggled from Occupied France by *La Résistance*, it was proposed to use *Burza* to ram the gates of the great dock during the St Nazaire Raid (*Operation Chariot*). This proposal was rejected and *Burza* was completely rebuilt at Portsmouth in the UK and refitted as an oceanic escort. She appeared in November 1942 with two of her 130mm guns retained, one 3in/40 12pdr Mk V anti-aircraft gun, one quadruple 2pdr pom-pom Mk VIII, four 20mm/70 Oerlikon Mk I guns, two twin Hotchkiss machine guns retained, one triple bank of torpedo-tubes retained forward, one Hedgehog 24 spigot mortar in place of the forward gun, four Thornycroft Mk IV depth charge throwers, two depth charge chutes, two launches of rocket flares on the shield of the 130mm B mounting and depth charge stowage increased to 120. The rangefinder was replaced by a Type 272 surface warning radar installed in the Plexiglas shield. A Type 291 air warning radar was also installed with the antennae on the topmast, plus a Type 252 IFF. The ship was painted in the ‘Reversed Western Approaches’ camouflage scheme. In April 1943, *Burza* received a mainmast with high frequency direction-finding (HF/DF, known as ‘huff-duff’) antennae at the top and modern medium-frequency direction-finding (MF/DF) antennae in front of the bridge.

2. FRENCH-BUILT *WILK* SUBMARINE

These double-hulled minelaying submarines of Normand-Fenaux design were based on the French Saphir class, but with a substantial change to the minelaying equipment. Instead of external wet vertical mine tubes, the mine tubes (at the request of the Poles) were built into the internal hull; a change that apparently reflected the experience of the Russian submarine minelayer *Krab.*

Their tasks were the mining of the Gulf of Finland to block the progress of the Soviet Baltic Fleet into the open sea. In the 1930s, the submarines repeatedly undertook reconnaissance at the approaches to Soviet ports and bases; details of these missions were kept top secret at the time, and were disclosed only recently by the last surviving members of their crews.

Wicher-class construction

Pt-No 1932–37	Pt-No 1939–46	Name	Builder	Laid down	Launched	Commissioned	Fate
B	H 73	*Burza*	Chantiers Navals Français, Blainville, France	1/11/27	16/4/29	10/8/32	Scrapped 1977
W	-	*Wicher*		19/2/27	8/7/28	8/7/30	Sunk 3/9/39

The destroyers *Wicher* and *Burza* were contracted in April 1926. To mitigate the risk, the standard 1,500-ton French destroyer type, of which CNF had experience building, was chosen. Because of budget restrictions, it was decided to proceed with only three minelaying submarines, and the contract for what became *Wilk*, *Ryś* and *Żbik* was signed in December 1926. British observers complained that French companies were awarded all the contracts only because of the French bank loan to Poland and the ‘lavish bestowal’ of the Légion d’honneur.

France’s influence on the development of the Polish Navy was not limited to shipbuilding. Polish naval officers attended studies at the *École Naval* (Naval Academy), which educated a new generation of commanders free of the influence of the Imperial Russian Navy. The old French colonial cruiser *D’Entrecasteaux* was purchased from France and re-named *Bałtyk*. After berthing at Gdynia, where the size of the ship made it the most prominent pre-war feature in the harbour, *D’Entrecasteaux* became the training ship for Polish Navy petty officers.

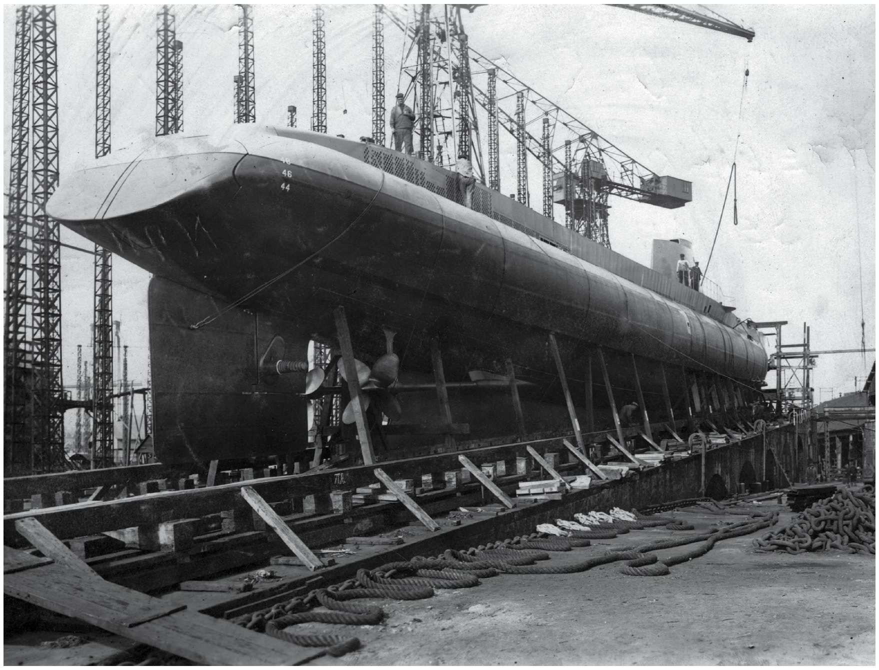
Wilk-class submarines specifications

Displacement	980 tons surfaced; 1,248 tons submerged
Dimensions	length: 78.0m; beam: 5.9m; draught: 4.5m
Complement	5 officers and 42 men
Armament as fitted	1 Schneider 100mm Modèle 1917 gun
	1 Vickers-Armstrong Mk II 40mm anti-aircraft gun
	6 550mm torpedo tubes (4 fixed at bow, 2 swivel midship) with reductors for 21in and 450mm; 10 1924V torpedoes
	2 mine tubes; 40 SM-5 mines
Machinery	2 Normand Vickers 8-cylinder diesel engines; 2 SACM electric motors driving 2 shafts
Speed	14.5 knots at 1,800hp surfaced; 9.5 knots at 1200hp submerged

Fuel	139 tons of oil; range 7,000nm (12,964km) at 10 knots surfaced
Battery bank	200 cells; range 100nm (185km) at 5 knots submerged
Diving depth	80m operational; 100m crushing

Wilk-class construction

Pt-No 1932–37	Pt-No 1939–40	Pt-No 1940–46	Name	Builder	Laid down	Launched	Commissioned	Fate
R			*Ryś*	Chantiers de la Loire, Nantes, France	28/5/27	22/4/29	2/8/31	Scrapped 1956
W	64 A	N 64	*Wilk*	Chantiers Augustin Normand, Le Havre, France	1927	12/4/29	31/10/31	Scrapped 1954
Ż			*Żbik*	Chantiers Navals Français, Caen, France	1927	14/6/30	20/2/32	Scrapped 1956



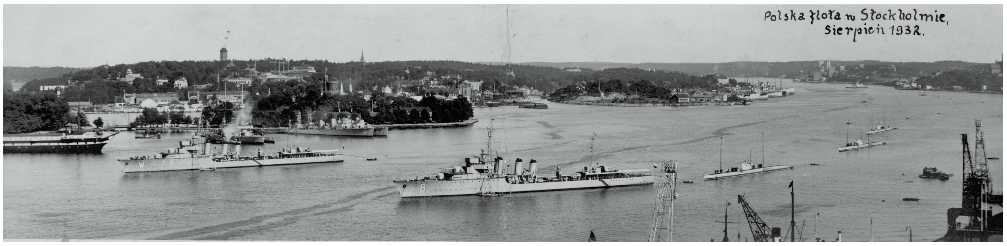
The submarine *Ryś* on a slipway at the Chantiers de la Loire shipyard in Nantes showing the covers of the horizontal mine tubes at the stern. (Narodowe Archiwum Cyfrowe)

It took over six years to deliver the three submarines and two destroyers to Poland, but significant delays were typical in French shipyards at that time. When they arrived at Gdynia, however, they changed the balance of naval power in the Baltic Sea as they were the most modern, the largest and most heavily armed vessels in their respective classes.

Between the Soviet Union and Germany

In the early 1930s, Josef Stalin consolidated his power and pushed the Soviet Union towards forced industrialization and unrestrained rearmament. In December 1932, during the World Disarmament Conference in Geneva, Germany was granted parity in armament with the consent of France, which proved to be a serious blow to the latter's relations with Poland.

The political situation in Poland changed: in mid-May 1926, Marshall Piłsudski carried out a *coup d'état*. It did not enhance the Polish Navy's prospects, however, as Piłsudski's naval experience was limited to 'brown water' skirmishes during the Polish-Bolshevik War. Świrski did not belong to Piłsudski's trusted veterans' group but kept his position simply because nobody else wanted to deal with naval matters. Under such circumstances, all Świrski was able to get was the approval of some new orders for riverine craft. The most interesting of these included three Zuchwała-class river gunboats, four LKU-16-class armoured motor gunboats and three T-1-class armoured river minesweepers which were to be built in Pińsk. The Vistula Flotilla got the 38-ton armoured motor gunboat *Nieuchwytny* and four lesser vessels. In 1926, two small river monitors of the Kraków class were delivered.



A display of power: the newly built Polish Navy fleet at Stockholm on 25 August 1932. (Muzeum Marynarki Wojennej Collection)

Piłsudski was a strategic thinker: he believed that the Polish Corridor was a key asset that had to be taken into consideration in the event of a war with Germany. A Polish military presence there was seen by Piłsudski as a matter of prestige. Prestige and national pride were gaining in importance in Poland in 1930, especially when Gottfried Treviranus, a member of the German cabinet, made a fierce speech questioning the legality of Poland's possession of the Polish Corridor and demanding changes. By then the Polish population had become more interested in the country's maritime affairs, thanks to the successful development of the harbour at Gdynia. Polish organizations responded with demonstrations and public subscriptions to fund the building of a submarine. Piłsudski's trip to Madeira in 1930 on board *Wicher* and these public actions influenced his opinion and he promoted Świrski to Rear-Admiral in 1931. After two years, Świrsk managed to convince Piłsudski to invest in naval defence. Authorization was obtained for the construction of four minesweepers to replace the ageing FM-type vessels, and the design and construction of the new minesweepers was awarded to Polish shipyards, which produced satisfactory vessels in a reasonable time – a notable achievement for what was an emerging indigenous shipbuilding industry.

The cracks which had begun to appear in Polish–French relations culminated in the Polish government requesting the termination of the French naval mission in the country. The main reason given was disappointment with the degree of French–German rapprochement.

The minelayer *Gryf*, the last ship to be completed by a French shipyard before the outbreak of World War II, was the epitome of Polish–French cooperation; but the design concept was ill-fated with unsuccessful attempts to combine its minelaying capabilities with a heavy gun armament, spacious berths for cadets and facilities for state yacht functions, all of which left little room for adequate propulsion. Money was intertwined once again with politics, with the result that the shipbuilding order which should have helped address France's unemployment problem was made into a bargaining tool in exchange for a series of import credits received by Poland. Initially CNF was chosen as the contractor, but in February 1934 the Augustin Normand shipyard in Le Havre was awarded the contact because its management agreed to order a number of the components required from companies in Poland, in line with Poland's policy of developing its own shipbuilding industry.

***Gryf* minelayer specifications**	
Displacement	2,227 tons standard
Dimensions	length: 103.2m; beam: 13.1m; draught: 3.6m
Complement	12 officers and 176 men
Armament as fitted	6 Bofors 120mm Model 36 guns (2x1, 2x2)
	4 Bofors 40mm Model 36 anti-aircraft guns (2x2)
	4 Hotchkiss 13.2mm Modèle 1930 machine guns (2x2)
	mine rails for 300 mines plus 300 mines on the main deck
Machinery	2 Sulzer 8SD48 8-cylinder diesel engines driving 2 shafts
Speed	20 knots at 6,000shp

Fuel	310 tons of oil; range 9,500nm (17,594km) at 10 knots

***Gryf* construction**					
Name	Builder	Laid down	Launched	Commissioned	Fate
Gryf	Chantiers Augustin Normand, Le Havre, France	14/11/34	29/11/36	27/2/38	Sunk 3/9/39

The Augustin Normand shipyard reinforced its bad reputation by taking four long years to build the ship. *Gryf* arrived at Gdynia nine months later than the modern destroyer *Grom*, which had been ordered from the J. Samuel White shipyard in East Cowes on the Isle of Wight a year later than the minelayer. No wonder comparisons between the two were unfavourable to *Gryf*.

The placing of orders for capital ships (in the case of Poland, destroyers) with shipbuilders outside France was testimony to the widening gap in the two countries' mutual relationship. As a result, two excellent destroyers (*Grom* and *Błyskawica*) were acquired, which were far more advanced than other destroyers of the day. They were the result of the most advanced British-destroyer design practices, without any of the financial limitations the Admiralty had imposed when ordering ships in larger series. The two destroyers represented the success of Świrski's policy that the Polish Navy's ships should be qualitatively superior to their counterparts in other navies, as quantitative equity could never be achieved.

The destroyer *Grom* during trials. For years to come this photograph was to symbolize the work of her builder, the J. Samuel White shipyard in East Cowes on the Isle of Wight.

(Muzeum Marynarki Wojennej Collection)

Grom/Modified Grom-class destroyer specifications

	Grom class (1937)	Modified Grom class (1942)
Displacement	2,011 tons standard; 2,110 tons normal	2,179 tons normal
Dimensions	length: 114.0m; beam: 11.3m; draught: 3.45m	length: 114.0m; beam: 11.0m
Complement	192	
Armament as fitted	7 Bofors 120mm Model 36 guns (1x1, 3x2)	
	4 Bofors 40mm Model 36 anti-aircraft guns (2x2)	6 Bofors 40mm Model 36 anti-aircraft guns (3x2)
	4 Hotchkiss 13.2mm Modèle 1930 machine guns (2x2)	4 Oerlikon 20mm anti-aircraft guns (2x2)
	2 triple 550mm torpedo tubes	
	2 depth charge chutes under quarterdeck; 20 depth charges	
	44 mines	mines
Machinery	2 Curtiss-Parsons geared steam turbines driving 2 shafts; 3 Admiralty boilers	
Speed	39 knots at 54,000shp	39 knots at 56,500shp
Fuel	350 tons of oil (max.); range 3,500nm (6,482km) at 15 knots	

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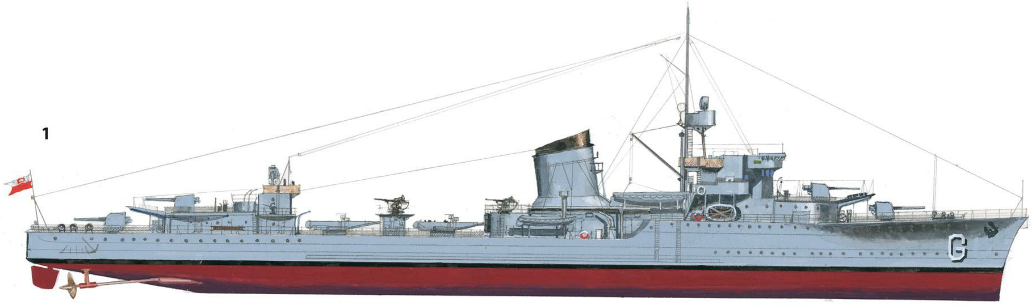
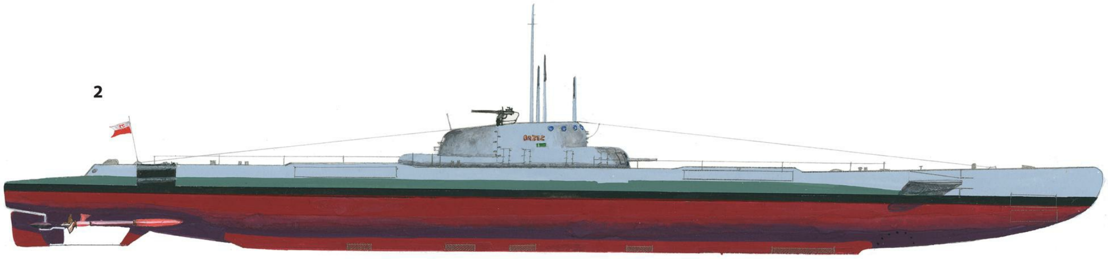




1. *GROM*, BRITISH-BUILT DESTROYER

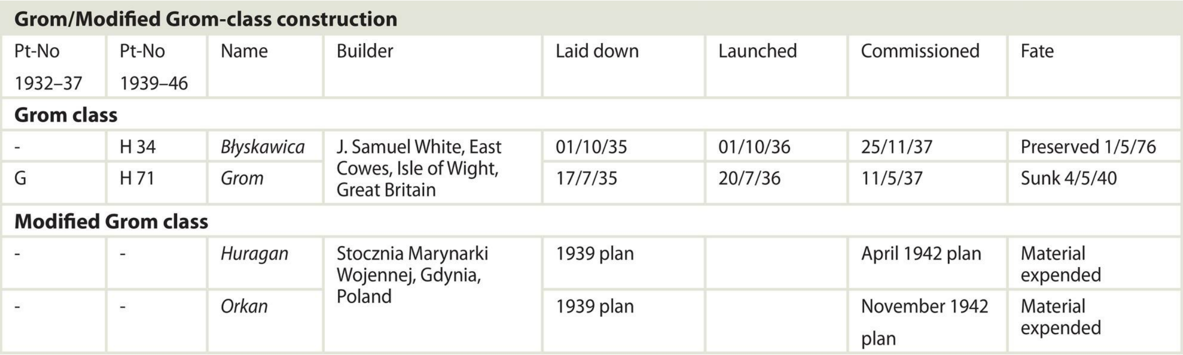
The intention of the Grom-class design concept was to build destroyers which would be stronger than any enemy destroyers they might encounter in the Baltic Sea, and at the same time would be capable of engaging in combat with the larger units of the German and Soviet fleets. Of several British shipbuilding firms competing in the third phase of destroyer tenders, the J. Samuel White shipyard was awarded the deal following an extended period of negotiations. The contract was signed in March 1935 and included a long list of equipment (including the fire-control system) which was to be provided by Polish firms. The innovative design of the destroyers drew on the many years of experience of British destroyer designers and was the test-bed for a radical breakthrough in British design practice:

- the adoption of a two-boiler-room layout which reduced hull length and allowed for a single funnel, which resulted in a reduction of the profile and an increase in the number of positions available for anti-aircraft weapons with unobstructed arcs of fire
- an increase of displacement, which in turn allowed an increase in gun armament by 50%
- longitudinal framing of the hull
- a clipper bow as used on Tribal-class destroyers.

Grom was laid down two years before the first of the British J-class destroyers which became the standard in British destroyer design practice until 1943. Designed for operations in the conditions experienced in the Baltic Sea, *Grom* sported topweight features such as a prominent funnel cap and a large searchlight platform at the foremast, giving the destroyer a cruiser-like appearance.

2. *ORZEŁ*, DUTCH-BUILT SUBMARINE

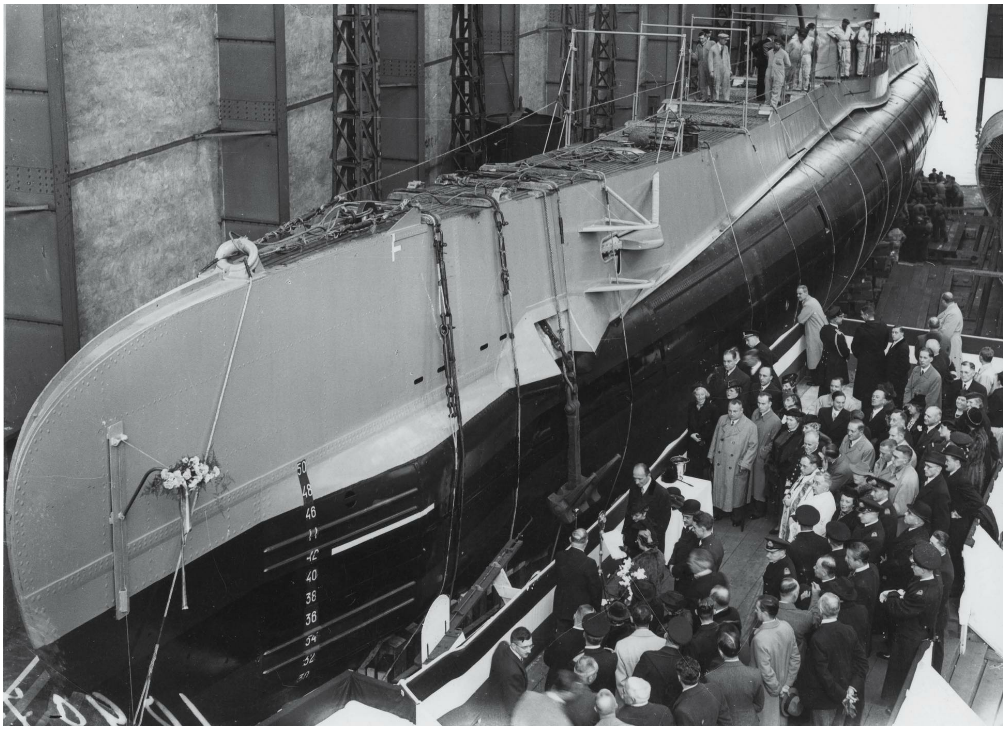
Of double-hull-type design, *Orzeł* was a logical step in the development of Dutch submarine designs, work which was boosted after World War I by moving German submarine experts to the Netherlands. The construction of *Orzeł* was preceded by the breakthrough design of O-16, which although it was substantially larger than the preceding types was also faster thanks to the adoption of hull lines developed in the renowned testing tank at Wageningen. The hull of O-16 was built from high-quality steel and partially welded. *Orzeł* was larger, had a welded hull and was framed outside at midship to provide more space inside the internal hull. The hydroplanes, rudder, hatches, steering system of ballast tank valves and the periscopes were hydraulically operated, which was a novelty at that time. The 105mm main gun was housed in a fairing and the twin 40mm anti-aircraft guns in the watertight well placed abaft the conning tower. Thus, Rear-Admiral Świrski's policy to take the best class, such as the Grom-class destroyers, resulted in splendid submarines that benefited from high-quality workmanship.



Grom/Modified Grom-class construction

Pt-No 1932–37	Pt-No 1939–46	Name	Builder	Laid down	Launched	Commissioned	Fate
Grom class							
-	H 34	*Błyskawica*	J. Samuel White, East Cowes, Isle of Wight, Great Britain	01/10/35	01/10/36	25/11/37	Preserved 1/5/76
G	H 71	*Grom*		17/7/35	20/7/36	11/5/37	Sunk 4/5/40
Modified Grom class							
-	-	*Huragan*	Stocznia Marynarki Wojennej, Gdynia, Poland	1939 plan		April 1942 plan	Material expended
-	-	*Orkan*		1939 plan		November 1942 plan	Material expended

The matter of submarines for the Polish Navy resurfaced in mid-1935, after Piłsudski’s death when raising funds through public subscription increased. These submarines needed to be capable of 20 knots to patrol the Gulf of Finland and to engage Soviet Gangut-class battleships. (It was not until the end of 1935 that Poland began to prepare for a war with Germany, until then, the Soviet Union was considered as the most likely adversary.) The preliminary design was prepared under the supervision of the Dutch United Shipbuilding Design Bureau but it soon became clear that the speed requirement could not be met at 700 tons’ displacement, so a design weighing 1,100 tons was chosen, even though it was too big for operations in the narrow and shallow waters of the Baltic Sea.



The launching of the submarine *Sęp* at the Rotterdamsche Droogdok on 17 October 1938. (Author's collection by courtesy of the Rotterdamsche Droogdok Maatschappij)

British, American, Italian, Swedish and Dutch shipyards were invited to tender (the absence of the French was significant) and the Dutch offer with favourable payment terms was accepted. The public debut of the submarine *Orzeł* purchased with subscription funds at Gdynia on 10 February 1939 was witnessed by a crowd of 30,000, evidence of a change in the Polish attitude towards the sea and the navy within just one generation. At the time, Gdynia was the busiest port on the Baltic Sea.

The second of the class, *Sęp*, funded by navy budgets, arrived at Gdynia in April 1939, before the sea trials had been completed. Because of the uncertain situation caused by Germany's occupation of Prague and to protect against acts of sabotage, the submarine was commandeered by a Polish crew during the sea trials with a few Dutch shipwrights also on board.

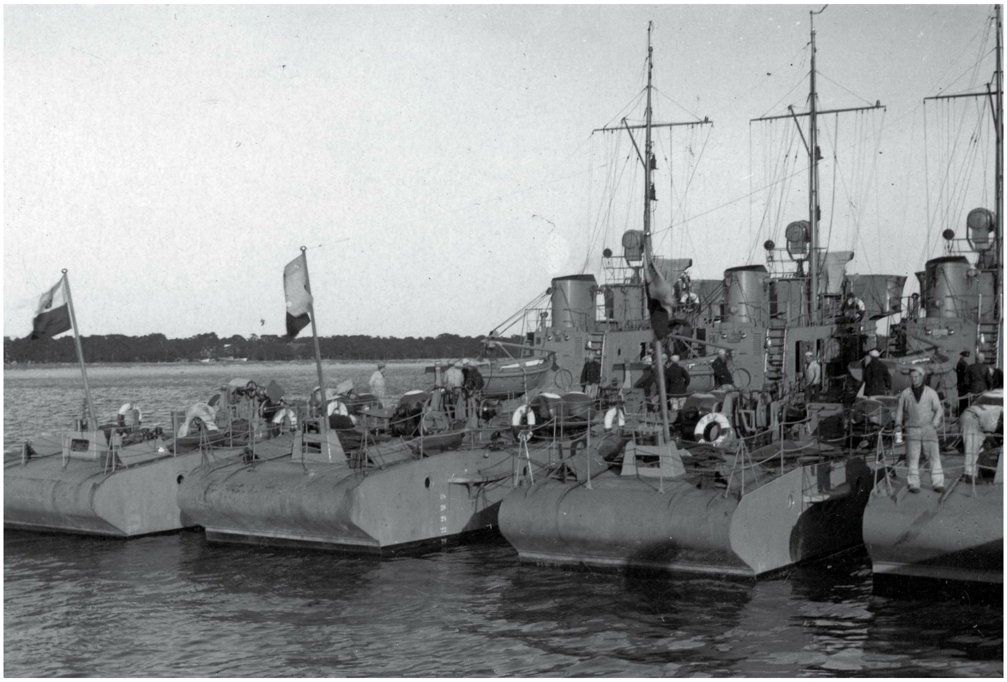
Orzeł/Modified Orzeł-class submarines specifications

	Orzeł class	Modified Orzeł class
Displacement	1,100 tons surfaced; 1,473 tons submerged	1,175 tons surfaced; 1,530 tons submerged
Dimensions	length: 84.0m; beam: 6.7m; draught: 4.2m	length: 88.9m; beam: 8.0m; draught: 4.2m
Complement	6 officers and 54 men	
Armament as fitted	1 Bofors 105mm Model 36 gun	None
	2 Bofors 40mm Model 36 anti-aircraft guns (1x2)	4 Bofors 40mm Model 36 anti-aircraft guns (2x2)
	2 Hotchkiss 13.2mm Modèle 1930 machine guns (1x2)	None
	12 550mm torpedo tubes (4 fixed at bow, 4 fixed at stern, 2 twin swivel midship) with reductors for 21in; 20 torpedoes	12 550mm torpedo tubes (4 fixed at bow, 4 fixed at stern, 2 twin swivel midship) with reductors for 21in; 20 torpedoes
Machinery	2 Sulzer 6QD42 6-cylinder diesel engines; 2 Brown-Boveri electric motors driving 2 shafts	2 Sulzer 7QD42 7-cylinder diesel engines; 2 Brown-Boveri electric motors driving 2 shafts
Speed	20 knots at 4,740shp surfaced; 9 knots at 1,100hp submerged	20 knots at 5,400shp surfaced; 9 knots at 1,200hp submerged
Fuel	75.6m^3 oil; range 7,000nm (12,964km) at 10 knots surfaced	89.3 tons oil; range 7,000nm (12,964km) at 9 knots surfaced
Battery bank	200 cells; range 100nm (185km) at 5 knots submerged	212 cells; range 100nm (185km) at 5 knots
Diving depth	80m operational; 100m crushing	80m operational

Orzeł-class construction

Pt-No 1939–40	Name	Builder	Laid down	Launched	Commissioned	Fate
Orzeł class						
85 A	*Orzeł*	Maatschappij de Schelde, Vlissingen, The Netherlands	14/8/36	15/1/38	2/2/39	Lost 8/6/40
-	*Sęp*	Rotterdamsche Droogdok Maatschappij, Rotterdam, The Netherlands	Nov 1936	17/10/38	16/4/39	Stricken 2/9/69
Modified Orzeł class						
	•	Chantiers Augustin Normand, Le Havre, France	1939	-	-	Scrapped on slipway 1940–41
	•	Chantiers de la Loire, Nantes, France	1939	-	-	Scrapped on slipway 1940–41

The subsequent introduction of compulsory military service in Germany and the creation of the *Wehrmacht* (armed forces) acted as an impulse to revive the obsolete Polish–French alliance. An agreement signed in September 1936 at Rambouillet granted French military credit to Poland, aimed at strengthening the country's defence capabilities. A six-year rearmament programme, authorized in 1936, included a thorough modernization of the Polish armed forces. The small preliminary naval programme devised by the Polish Navy called for the expansion of the force to eight destroyers, 12 submarines, one minelayer, 12 minesweepers and ten motor torpedo boats by 1942.

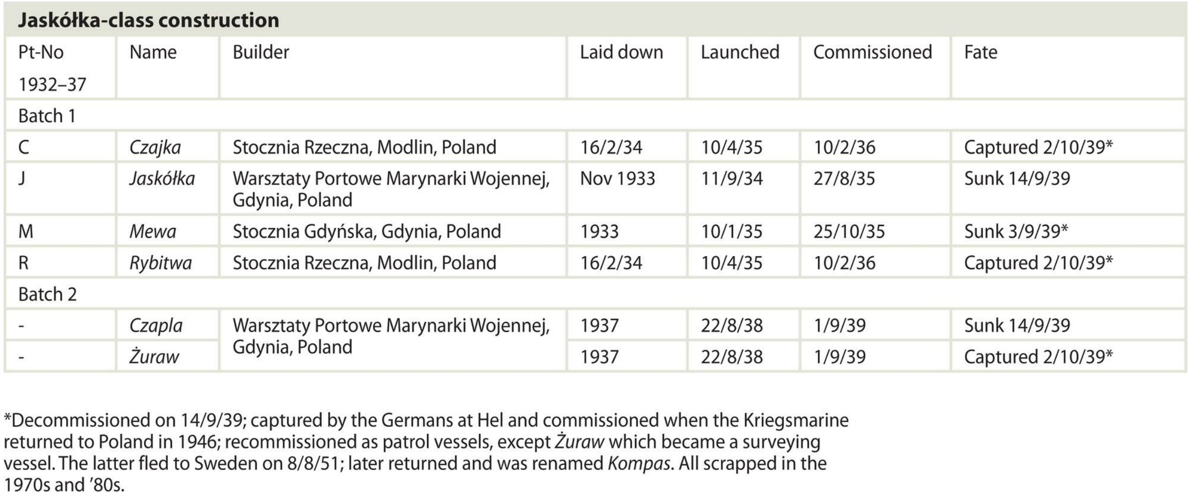


Polish Navy minesweepers at Hela during the late 1930s. From left to right: *Mewa*, *Czajka*, *Rybitwa* and *Jaskółka*. (Muzeum Marynarki Wojennej Collection)

Based on the configuration of *Orzeł*, two submarines were ordered in 1939 to be built in France. The somewhat outdated construction methods of the French shipyards as compared with their Dutch counterparts accounted for an increase in weight; a direct result of a more conservative approach to the framing and less use of hydraulics. The traditional internal framing made the submarines more cramped as well. The Modified Orzeł class, however, sported a feature that was to be adopted by the world's leading submarine force – Germany's Kriegsmarine – just five years later in its Type XXI U-boats. This was the absence of a main gun, which on the Modified Orzeł class was replaced by an additional pair of 40mm anti-aircraft guns housed in the watertight well forward of the conning tower, thus doubling the anti-aircraft firepower to four automatic 40mm guns.

In May 1939, construction of an additional two Grom-class destroyers, *Huragan* and *Orkan*, began at the Naval Workshops at Gdynia. They were due for delivery in April and November 1942 respectively, but the steel for their production had only been partly assembled when Germany invaded Poland on 1 September 1939. Despite poor performance in the past, the French Chantiers Augustin Normand and Chantiers de la Loire shipyards received an order for the construction of one submarine each. They were laid down in 1939 with delivery scheduled for 1940–41, but construction work was suspended in April 1940 and the hulls were subsequently dismantled.

Jaskółka-class minesweepers specifications	
Displacement	183 tons standard; 200 tons full load
Dimensions	length: 45.0m; beam: 5.5m; draught: 1.55m
Complement	30 officers and men
Armament as fitted	1 Schneider 75mm Modèle 1928 gun (*Czapla* and *Żuraw*: Modèle 1897 *Soixante-Quinze*)
	Czapla and *Żuraw* only: 2 Hotchkiss 13.2mm Modèle 1930 machine guns (1x2)
	2 Maxim 7.92mm MG 08 machine guns (2x1)
	mine rails for 20 Model 08 mines
	1 sweep winch, 1 Ronarc'h sweep, 1 Shultz sweep
Machinery	2 Nohab 8DG (*Czajka*: Nyquist-Holm) 8-cylinder diesel engines driving 2 shafts
Speed	18 knots at 1,050shp

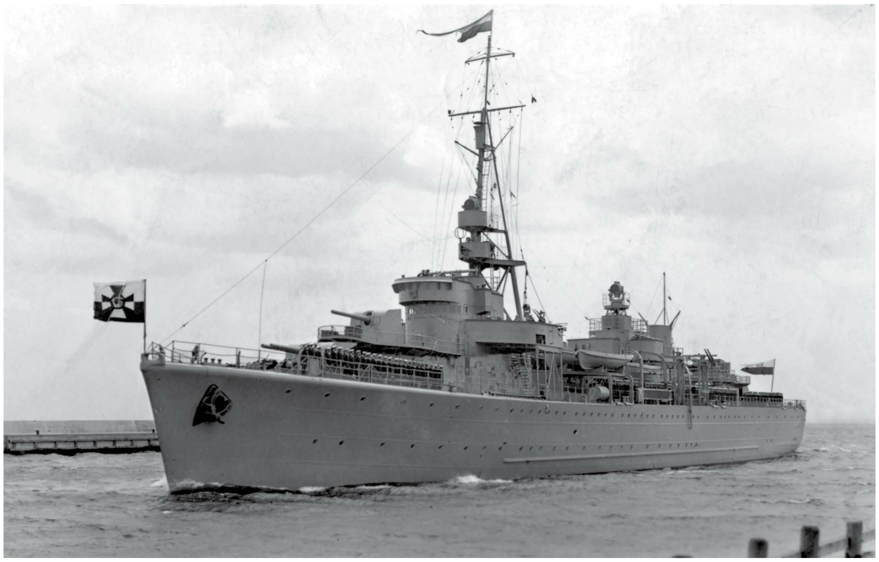


Jaskółka-class construction

Pt-No 1932–37	Name	Builder	Laid down	Launched	Commissioned	Fate
Batch 1						
C	*Czajka*	Stocznia Rzeczna, Modlin, Poland	16/2/34	10/4/35	10/2/36	Captured 2/10/39*
J	*Jaskółka*	Warsztaty Portowe Marynarki Wojennej, Gdynia, Poland	Nov 1933	11/9/34	27/8/35	Sunk 14/9/39
M	*Mewa*	Stocznia Gdyńska, Gdynia, Poland	1933	10/1/35	25/10/35	Sunk 3/9/39*
R	*Rybitwa*	Stocznia Rzeczna, Modlin, Poland	16/2/34	10/4/35	10/2/36	Captured 2/10/39*
Batch 2						
-	*Czapla*	Warsztaty Portowe Marynarki Wojennej, Gdynia, Poland	1937	22/8/38	1/9/39	Sunk 14/9/39
-	*Żuraw*		1937	22/8/38	1/9/39	Captured 2/10/39*

*Decommissioned on 14/9/39; captured by the Germans at Hel and commissioned when the Kriegsmarine returned to Poland in 1946; recommissioned as patrol vessels, except *Żuraw* which became a surveying vessel. The latter fled to Sweden on 8/8/51; later returned and was renamed *Kompas*. All scrapped in the 1970s and '80s.

Only four of the ships in the six-year rearmament programme were completed. The two additional Jaskółka-class minesweepers were built by the Naval Workshops at Gdynia and hastily commissioned for service. Two motor torpedo boats, ordered in January 1939 from the J. Samuel White shipyard, were completed in 1940 and taken over by the Royal Navy. The first S-1 (named *Wilczur*) was returned to the Poles soon afterwards, while the second one was replaced by two vessels from the British Power Boat class.



The minelayer *Gryf*, now on public display, making its way through the southern entrance to the harbour at Gdynia. (Marek Twardowski Collection)

THE POLISH NAVY IN WORLD WAR II

The German–Soviet assault

Less than six months after he signed the Munich Agreement on 30 September 1938, Adolf Hitler demonstratively broke its terms as German forces occupied the rest of Czechoslovakia in mid-March 1939 and, a week later, annexed the Lithuanian region of Klaipėda (*Memelland* in German). On 30 March Britain gave Poland a guarantee of its independence, a move aimed at preventing Poland from succumbing and joining Germany in an alliance. In response, Hitler terminated the non-aggression pact with Poland and demanded the incorporation of the Free City of Danzig into Germany, as well as the fragmentation of the Polish Corridor by the extraterritorial highway to East Prussia. This demand was rejected by Poland in May. During the summer, a series of tripartite British–French–Polish meetings began in Paris and Warsaw, with the objective of agreeing details of an alliance.

On 25 July 1939, Poland shared the German *Enigma* cipher-encryption device with the Allies plus the decryption methodology and tools which they had used to read German military communications since 1933. This laid the foundation for the British *Ultra* project and was perhaps the biggest contribution Poland made to the defeat of the Nazi system. The official Anglo–Polish military pact was signed on 25 August 1939. The threat Poland now faced became evident when Germany and the Soviet Union concluded the Treaty of Non-Aggression on 23 August, completely changing their previous strategies.

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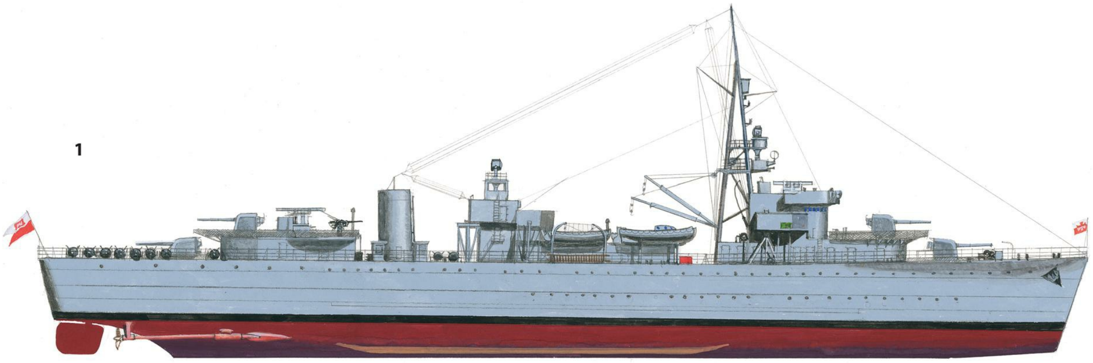

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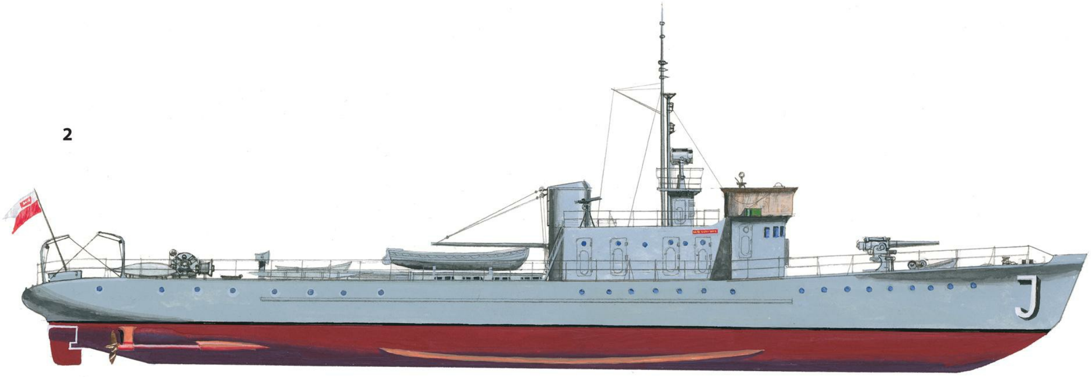


1. FRENCH-BUILT MINELAYER *GRYF*

Gryf was designated to conduct independent minelaying operations both in defence of the Gulf of Danzig and in offensive operations in the Gulf of Finland. The design concept was influenced by similar trends in other navies; apparently the Japanese minelayer *Itsukushima* was an inspiration. *Gryf* was to be capable of laying a large minefield in a single operation, but with a top speed of just 20 knots she was completely incapable of offensive minelaying. In addition, the military appearance of the ship precluded clandestine operations. The battery of six 120mm guns did not provide as good a level of protection as an additional 10 knots of speed, especially when carrying a full load of mines.

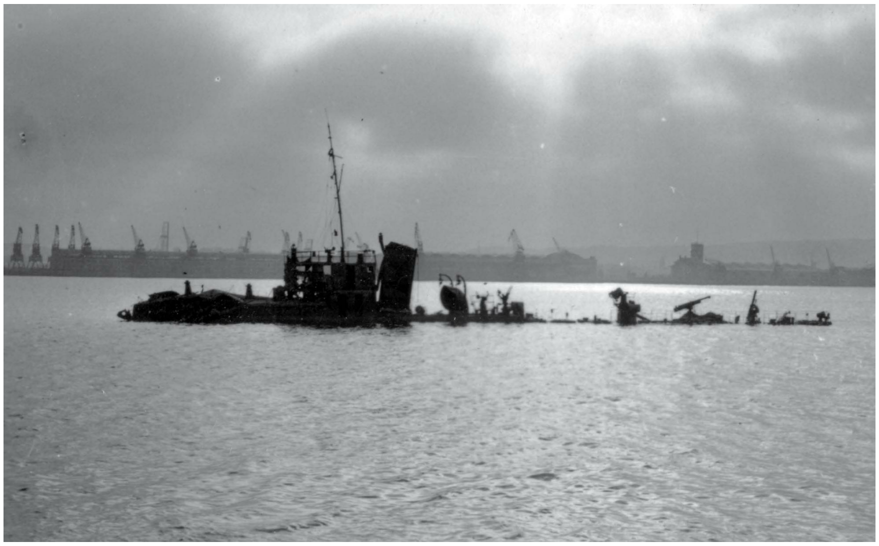
A considerable effort was made to provide training facilities, with a duplicate bridge and large teaching rooms available for cadets, this being achieved by the removal of mine rails at the ’tween deck. The removable mine rails were heavy and their positioning obstructive, which added another criticism of what was a generally misguided concept. To make matters worse, in the attempts to ensure the cadets were comfortable, things had gone too far: the doors at the end of the mine rails in the transom had been welded shut, which had the effect of reducing the space available for (and therefore the number of) mines.

2. POLISH-BUILT MINESWEEPER *JASKÓŁKA*

The four Jaskółka-class minesweepers were intended to replace the ex-German FM-type minesweepers which were discarded in 1931 because of their age. Despite their insignificant size, the six minesweepers were good sea craft, their design featuring a flush-deck hull and a good share of bow. The deck was beamy aft to provide a large amount of space for mine rails and minesweeping equipment. The mine rails could hold 40 mines, but this number was halved in practice. It took two years to construct each vessel after keel laying; and the value of materials and components delivered by Polish industry reached 80%.

It should be mentioned that construction of seagoing minesweepers with a displacement of 300 tons was considered for a while, but due to budget constraints it was decided in 1937 to place a repeat order for the Jaskółka-class minesweeper design, which had already proven itself in service. Being of sturdy construction, four of the minesweepers captured by the Germans were sunk but subsequently raised in September–October 1939 and served with the Kriegsmarine during the war, then for over 25 years in the navy of communist Poland.

The threat posed by Germany re-ignited the strategic dilemma posed by the Polish Corridor. It was obvious that the whole region would soon be quickly cut off by German forces, and that the Polish Navy's surface forces would be of little value. As the commencement of hostilities between Poland and Germany drew closer, on 30 August three of the Polish Navy's destroyers (*Błyskawica*, *Grom* and *Burza*) were dispatched to safety in Britain. *Wicher* was left behind in case Germany focused its military action on the seizure of Danzig or the Polish Corridor.



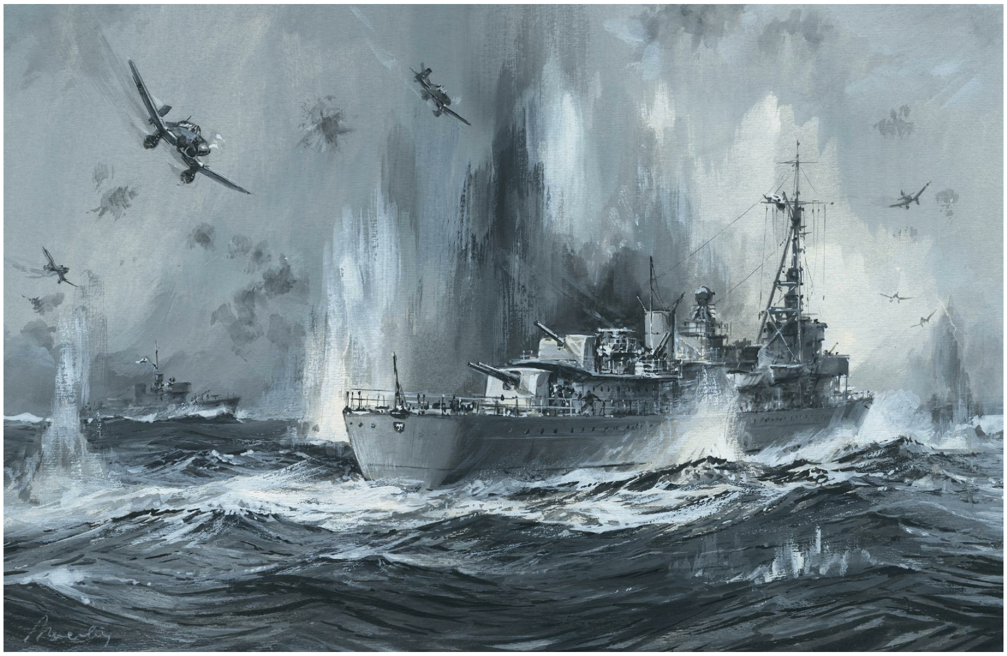
Mazur had the dubious honour of being the first warship to be sunk during World War II. One bomb dropped during a Luftwaffe attack hit the bow, while the explosion of a second bomb blew the vessel 75m away from the quay. Fully manned, with the boiler- and engine-room personnel trapped inside, *Mazur* was lost along with 46 crewmen. (Marek Twardowski Collection)

The Polish Navy's operational plan was purely defensive in nature and was based on the assumption that German forces would land on the Hela Peninsula. Accordingly, Polish Navy submarines were to be deployed around the peninsula, waiting in their positions for the enemy. The Polish part of the Bay of Danzig was to be cordoned off by means of a minefield, protected by the four-gun 6in Bofors battery at the Hela base, the whole concept being a copy of Russia's mine–artillery position in the Gulf of Finland during World War I.

On 1 September 1939, Poland was subjected to a full-scale invasion by German forces. The Polish Navy's fleet based at Gdynia and Hela under Rear-Admiral Józef Unrug faced a naval and air force comprising the old battleship *Schleswig-Holstein* (a second battleship, *Schlesien*, arrived three weeks later), three light cruisers, nine destroyers, ten submarines, 40 lesser ships and 449 aircraft. *Schleswig-Holstein* fired the first shots of World War II when, at 0445hrs on 1 September, the battleship began shelling the Polish military base of Westerplatte in Danzig.

The first Polish Navy vessels to participate in the war were the submarines which left for their patrol zones by 0600hrs, preceded by the minelayer *Gryf* which headed to the Bay of Puck to load mines from barges in preparation for a planned nocturnal minelaying operation against German vessels – in fact, it was the Luftwaffe that was given primary responsibility for eliminating the Polish Navy's fleet.

At 1400hrs on 1 September, in an air raid on Gdynia conducted by Ju 87 dive-bombers of IV.(St)/LG1, the gunnery training ship *Mazur* and the auxiliary *Nurek* were disabled. During the attack the destroyer *Wicher* (commanded by Lieutenant-Commander Stefan de Walden), four minesweepers and both gunboats manoeuvred while firing on the German aircraft. At 1700hrs the Polish force moved off slowly in a line to the northwest heading towards Hela, and was joined by *Gryf* with 300 mines on board. An hour later the column, headed by *Wicher*, was attacked by three squadrons of IV./LG1 totalling 32 Ju 87s, escorted by eight Bf 109E fighters of I.(J)/LG2, in what became the first naval–aerial battle of World War II. Although the Ju 87s failed to score any direct hits during multiple attacks which lasted 25 minutes, near-misses and machine-gunnery proved fatal. The minesweeper *Mewa* caught fire, was disabled and had to be taken in tow. *Gryf*'s captain (Lieutenant-Commander Stefan Kwiatowski) was killed, the ship's steering gear was damaged and a number of mines were derailed or damaged. *Gryf*'s second-in-command (Captain Wiktor Łomidze) decided to jettison the entire load of mines, the consequence of which was that the Polish Navy's surface forces lost their *raison d'être* – the main German success of the day. Next morning *Wicher* and *Gryf* were berthed in Hela harbour, their operational use now restricted to the role of floating artillery batteries. *Gryf* was half-sunk in a dock to help conceal her prominent silhouette.



Gryf and minesweepers during the naval–aerial battle on the first day of the war, as depicted in a watercolour by the Polish artist Adam Werka in 1976. Since the early 1950s several generations of naval and maritime enthusiasts in Poland, including the author, have been brought up on Werka's maritime paintings. (Marta Werka Collection)

On the morning of 3 September, the German destroyers *Leberecht Maaß* (flying the flag of Rear-Admiral Günther Lütjens) and *Wolfgang Zenker* undertook a reconnaissance sortie towards Hela. Both ships were engaged around 0700hrs by *Gryf*, *Wicher* and the four-gun 6in Bofors battery (commanded by Lieutenant Zbigniew Przybyszewski) at Hela. During a five-minute duel, the Poles scored a hit on *Leberecht Maaß*, damaging her forward gun mounting. A German hit on *Gryf* knocked out one anti-aircraft mounting, while the already-damaged *Mewa* was hit in the bow.

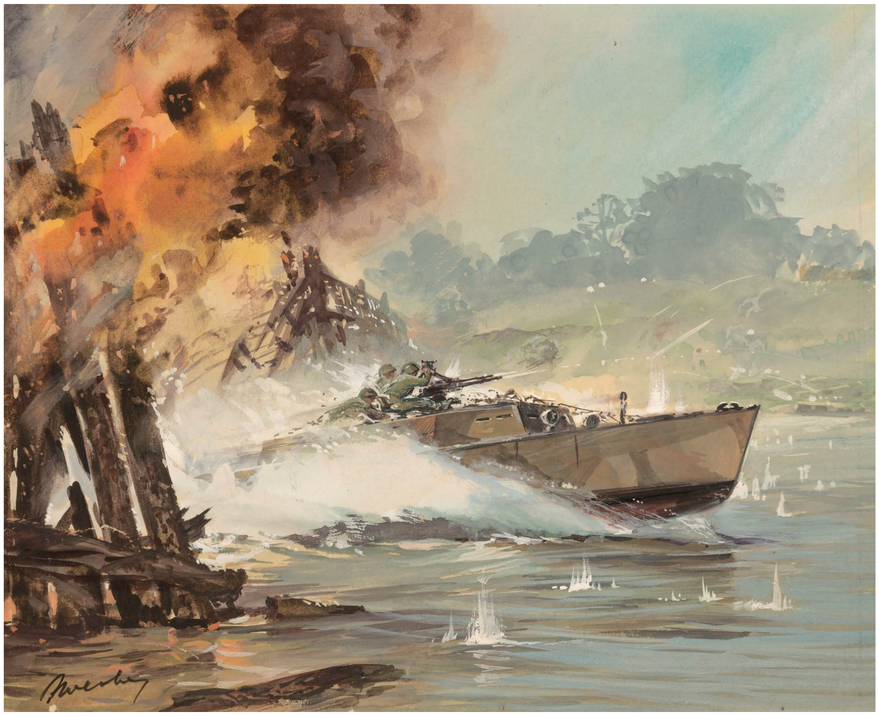
Two hours later, an air raid by Ju 87s from 4.(St)/186 Trägergruppe caused several fires to ignite on *Gryf*, which had to be abandoned as a result. Following a near-miss, *Mewa* broke her moorings and sank. The air raid was repeated at 1510hrs and *Wicher* was sunk, while the burning *Gryf* received further hits and started to take on water. The burning wreck was demolished during a third air raid, this time by He 59 floatplanes of 3.(M)/KüFlGr 706 at 1715hrs, by which time the main components of the Polish Navy's surface fleet had been annihilated. German forces cut off the Polish Corridor the same day.

The wreck of *Gryf* a few days after sinking on 3 September 1939, the aft Bofors 120mm guns still in position. The guns were removed soon afterwards to reinforce the coastal artillery defences on the Hela Peninsula. (Marek Twardowski Collection)

A small flotilla of five armoured motor gunboats and several minor vessels operated on the Vistula. From 3 September, they provided anti-aircraft defence of key bridges and fords, and moved upstream in line with the Polish Pomorze Army retreating from the Polish Corridor. The gunboats attempted to reach the fortress at Modlin, but because of shallows only KU-30 (thanks to her lightweight aluminium-alloy construction) arrived, dashing the last 85km under gunfire from the riverbanks which were already in German hands.

For the first week of hostilities, the Polish Navy's submarines, crowded in the shallows around Hela, waited in vain for the expected German landing armada. On 2 September *Sęp* fired a torpedo at the destroyer *Friedrich Ihn*, but missed and was heavily depth-charged at shallow depth. Next day, *Sęp* was attacked by U-14 but the torpedo exploded prematurely. In the days that followed, Polish minelaying submarines laid barrages which contributed to the loss of the German minesweeper M-85 on 1 October, (from the mines laid by submarine *Żbik*) and two fishing vessels.

The German invasion fleet did not appear on 4 September as expected, so *Sęp* and another submarine, *Orzeł*, left their patrol positions and moved towards the Swedish island of Gotland to replenish. The submarine *Ryś* was chased by German minesweepers and aircraft which inflicted damage on her fuel tanks inside the light hull. *Ryś* entered Hela base on 4 September for repair work which lasted one day, during which the submarine was half-submerged. This was an exception, however, as Hela base was under close surveillance by the Luftwaffe and thus was unable to support submarines operations.



The armoured motor gunboat KU-30 of the Vistula Flotilla breaking through the wrecked span of the destroyed bridge at Modlin, as depicted in a gouache by Adam Werka in 1969. His paintings have decorated the covers of widely read books on maritime affairs. (Marta Werka Collection)

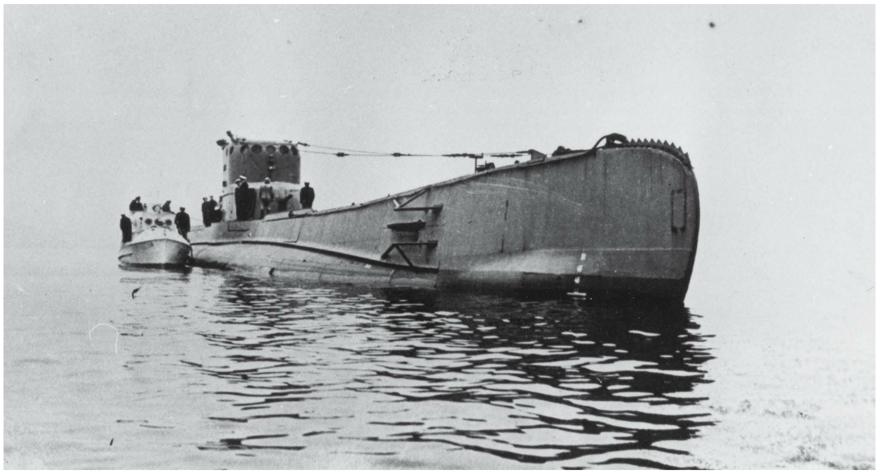
On 7 September, *Żbik* was attacked at close range by U-22, but again the premature explosion of German torpedoes saved the Polish submarine. After the first week of hostilities, the Polish submarines were ordered to move to patrol positions in the open sea, where traffic was expected.

After 3 September, the only Polish Navy surface warships that remained operational in home waters were the minesweepers *Czajka*, *Jaskółka* and *Rybitwa* under the command of Lieutenant-Commander Zbigniew Boczkowski, all of which were based at Jastarnia (*Czapla* and *Żuraw* were immobilized due to steering gear failure). On 12 and 14 September the three operational minesweepers shelled German troops in the vicinity of Gdynia and laid a mine barrage off Hela, but an air raid at 0730hrs on 14 September by 4.(St)/186 Trägergruppe brought their activities to an end. *Jaskółka* and *Czapla* were sunk as a result of bomb damage. The other three, only slightly damaged during the air raid, were evacuated to Hela and disarmed with their

75mm guns used to strengthen the coastal artillery batteries. Gdynia surrendered on 13 September to avoid damage to its infrastructure, and fighting around the town ended on 19 September.

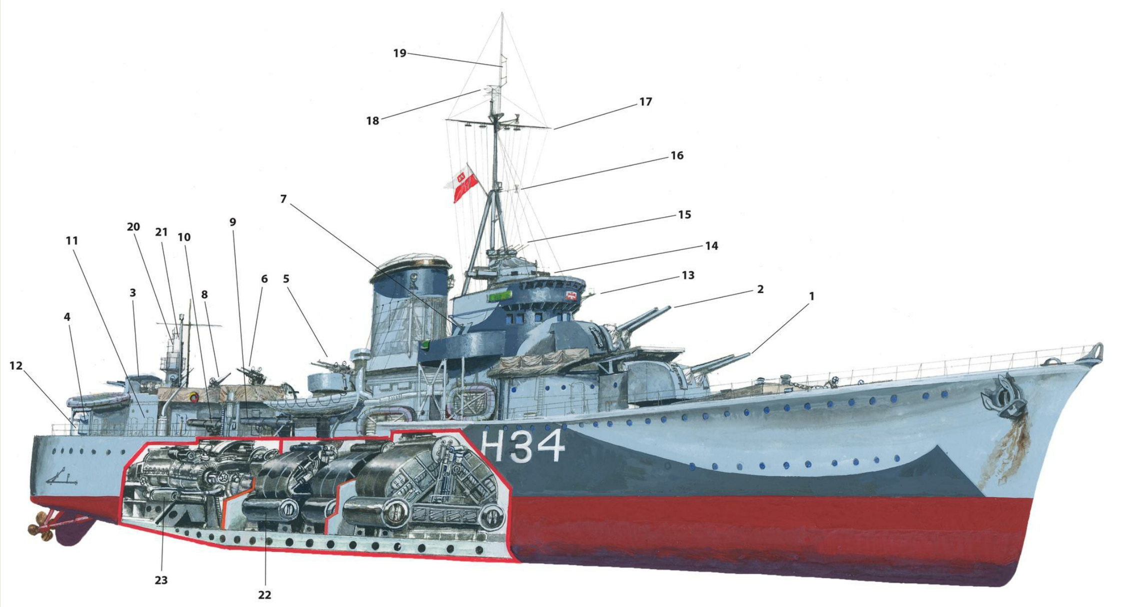
The Polish Navy's submarines, restricted by order to strictly adhere to international maritime law – submerged attack was permitted only on armed or convoyed ships – were unable to score any hits or find any targets, being assigned to fixed areas where they had to wait for enemy vessels to appear (the Russian-style 'positional' tactics). Finally, on 14 September, their commanding officers were given the freedom to act: after the longest possible stay in the Baltic Sea, the submarines were to head to Britain or, if that was not possible, to internment in Sweden. On the evening of the same day, *Wilk* (commanded by Lieutenant Bogusław Krawczyk) entered the Danish Straits and, taking advantage of the numerous movements by warships of various nationalities, passed through unchallenged on the surface.

It was ironic that the Polish Navy's most modern assets went to neutral ports first. *Orzeł* arrived off Tallinn in Estonia on the evening of 14 September and was interned next day in the port. The submarine's commanding officer (Lieutenant-Commander Henryk Kłoczkowski) having suffered a breakdown was removed from the boat; he was expelled from the Polish Navy in 1942. *Sęp* moved towards the Danish Straits, but because of leakages (she took 30 minutes to submerge), turned back halfway and arrived at Landsort in Sweden on the morning of 17 September. *Ryś* entered Stavsnäs in Sweden for internment the next day.



The submarine *Orzeł* approaching the harbour at Tallinn on 15 September 1939 and receiving assistance from an Estonian launch. (Author's collection by courtesy of Jerzy Miciński)

F *BŁYSKAWICA*, 14 APRIL 1944



KEY
1–4. 4in/45 Mk XVI guns on Mk XIX twin mounting
5–6. 40mm Bofors Model 36 twin mounting
7–8. 20mm/70 Mk I Oerlikon on Mk III single mounting
9–10. Triple 550mm TT mounting
11. 2 Thornycroft Mk iV depth-charge throwers
12. 2 depth-charge chutes
13. FM12 MF direction finder
14. Mk V director control tower
15. Type 285 gunnery radar antennae
16. Type 253 IFF antennae
17. Type 86M VHF antennae
18. Type 291 warning radar antennae
19. TBS VHF antennae
20. Type 272 target indication radar
21. Type 244 IFF antennae
22. Admiralty type boilers
23. Curtiss-Parsons geared steam turbines

Because of *Błyskawica*'s Bofors Model 36 guns' incompatibility with standard ammunition, it was decided to re-arm her with British armament. In November 1941, after a major refit, *Błyskawica* had the appearance of an anti-aircraft cruiser, with eight QF 4in/45 Mk XVI guns on four twin Mk XIX mounts having replaced the 120mm armament. In addition, four Thornycroft Mk IV depth-charge throwers and two deckmounted depth-charge chutes were fitted. The rangefinder on the bridge was replaced by a Mk V director control with a Type 285 artillery radar and the Type 281 early warning radar was replaced by a Type 291 search radar with rotating antennae.

During 1943 repairs, *Błyskawica*’s four Hotchkiss machine guns were replaced with four Oerlikon 20mm/70 Mk I guns on single Mk III mountings while the ’tween-deck depth-charge chutes were plated out. The direction finder was replaced with an FM-12 type with rectangular antennae; and a Type 252 IFF was installed along with a Type 86 TBS UHF set.

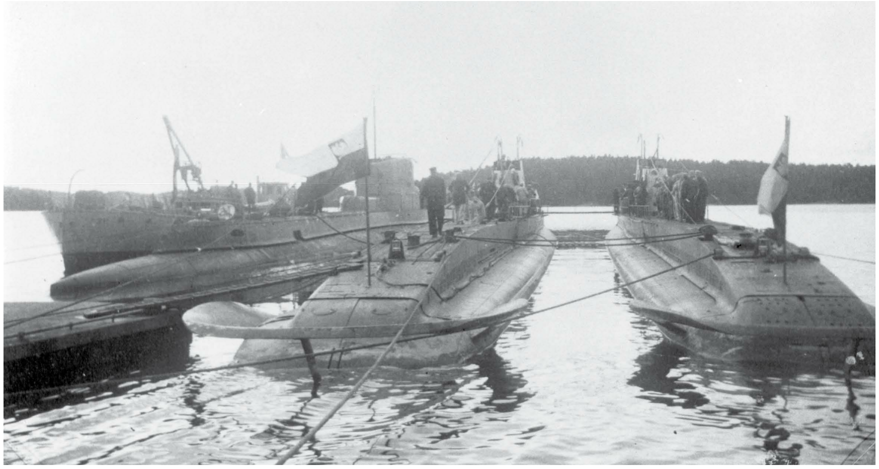
In April 1944, *Błyskawica* was fitted with a deckhouse equipped with the Type 272 surface search radar installed in the Plexiglas shield and the Type 244 IFF antennae atop. A third UHF set was also installed.

On 17 September, the Soviet Union’s Red Army crossed the eastern border of Poland with a force of seven armies, thus implementing obligations to Germany under the terms of the Treaty of Non-Aggression. Despite the fact that the Soviet-Union did not formally declare war on Poland, full-scale warfare was the brutal reality, resulting in dozens of battles and skirmishes involving Polish forces which had not yet been involved in operations against German forces. The Pińsk Flotilla’s vessels, trapped between the shallows of the Pripyat River and advancing units of the Red Army, were scuttled on 18–19 September, mostly at or near Pińsk. The 2nd Squadron commanded by Lieutenant-Commander Stefan Kamiński with the river monitor *Kraków*, ten armoured motor gunboats and three minesweepers made attempts to flee through the King’s Canal to the Bug River, practically racing with the Soviet troops advancing along the parallel road to Brześć. The flotilla’s progress was halted by the damaged bridge at the entrance to the King’s Canal, however, and the vessels were scuttled (most were then raised later by the Soviet EPRON salvage service as war booty and officially and solemnly commissioned with the Dnieper Flotilla on 24 October 1939).

The river monitors *Wilno* (left) and *Kraków* in 1926 on the Pripyat River. *Kraków* tried in vain to reach the Vistula River in September 1939, but the water-level at Pripyat was low and so the vessel became stuck. (Narodowe Archiwum Cyfrowe)

News of the Soviet Union’s aggression caused *Orzeł*’s crew to develop their plan to escape from Tallinn and sabotage the efforts of the Estonians to disarm the submarine. At midnight on 17 September *Orzeł* (commanded by Lieutenant Jan Grudziński) escaped the port after kidnapping two guards. The guards were later put ashore in Sweden while the Germans fuelled rumours they had been murdered. In fact, they had received a fair amount of money and inspired the saying: ‘From the afterlife you should come back first class’. German and Soviet ships began hunting for *Orzeł* in the central Baltic Sea and the Gulf of Finland respectively. The Soviets then used *Orzeł*’s escape to arrange the deliberate sinking of the naval collier *Metallist* ten days later, which served as a convenient excuse to impose a Soviet military presence in Estonia and the other Baltic States.

Żbik entered internment in Sweden on 25 September. The Polish garrison at Hela held out until 1 October, an act of resistance which did not have any strategic or operational significance but was valuable to the morale of a defeated Poland, which now found itself partitioned between Germany and the Soviet Union.



Polish Navy submarines at Vaxholm in Sweden, September/October 1939. (Muzeum Marynarki Wojennej Collection)

The last Polish Navy vessel operating in home waters during the war was *Orzeł*, which entered the Sund Narrows on the evening of 8 October, using provisional maps (the regular ones had been confiscated at Tallinn) prepared on board. Depths were measured ‘in fathoms and by guessing’, according to the mapmaker. *Orzeł* displayed ostentatiously Swedish colours and was looking out for potential prey in the Kattegat, then the Skagerrak; but because maritime traffic used Swedish territorial waters, a decision was made to sail west into the North Sea and head for the Firth of Forth on Scotland's east coast. *Orzeł* arrived on 14 October.

A close up of *Orzeł*'s bridge on 19 April 1940 while the submarine was returning from the patrol off Norway on which she sank the German troop transport *Rio de Janeiro*. (Imperial War Museum, HU 76132)

Revival: the Polish naval detachment 1939

The destroyers *Błyskawica*, *Grom* and *Burza* arrived at Leith in Scotland on 1 September 1939 and following the change of their radio equipment to British models, they commenced operations on 6 September. The first month was spent on patrols with the exception of *Błyskawica*, which was escorting a steamer loaded with weapons to be delivered to Poland via Romania. After the Soviet Union's invasion of Poland, however, the operation was cancelled. By mid-October the Polish Flotilla in Britain was complete following the arrival of the submarines *Wilk* and *Orzeł*, both of which commenced operational duties in December.

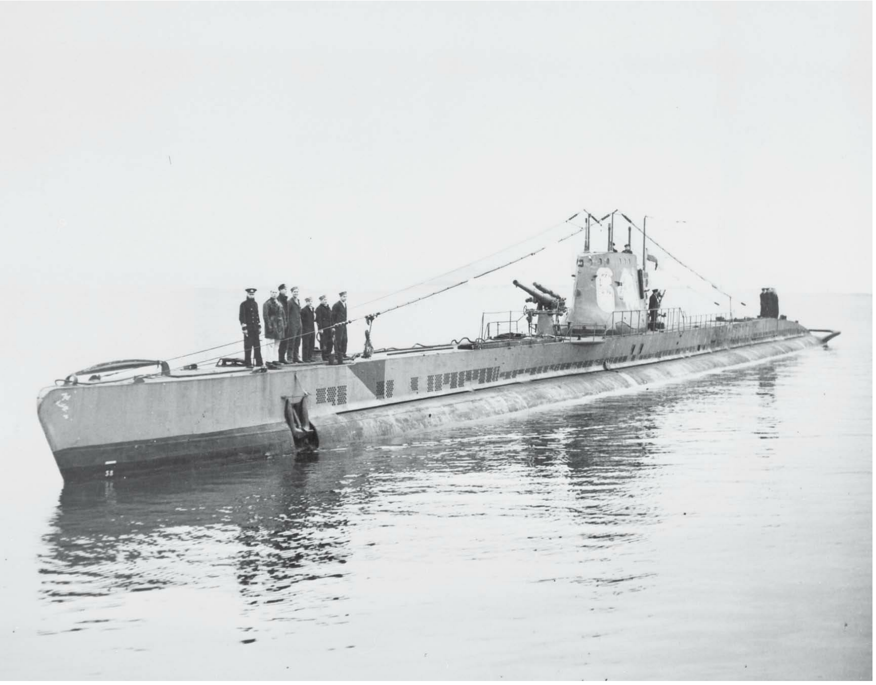
The Polish Government in Exile was re-established in Paris, with General Sikorski as Prime Minister and Commander-in-Chief of the Polish Armed Forces. Rear-Admiral Świrski managed to reach Paris via Romania at the beginning of October and took up his previous post. On 18 November the Anglo-Polish Naval Agreement was signed to form the Polish Naval Detachment (PND) in Great Britain. Polish warships now came under the operational control of the British Admiralty, while administration, command and regulation remained in Polish hands. The Polish naval command was moved to London at the end of the year.

The year of dashed hopes, 1940

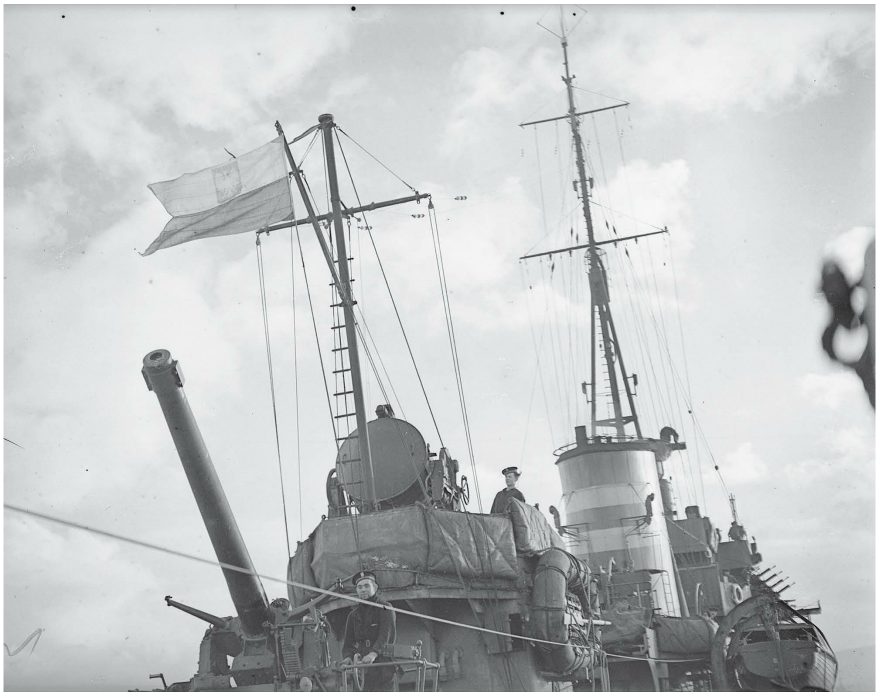
Finland

On 30 November 1939, the Soviet Union launched an all-out attack on Finland. As Poland was in a *de facto* state of war with the Soviet Union, France considered sending a Polish Carpathian Rifle Brigade and a Polish fighter squadron to Finland and activating the submarines *Sęp*, *Ryś* and *Żbik*, which were lying idle at the fortress of Vaxholm in Sweden. The negative response of the Swedish government to this proposal proved to be decisive, however, as it declared its neutrality in the war. Meanwhile, the British War Cabinet contemplated (for a while at least) dispatching Polish destroyers to Petsamo in Finland. The growing threat of Anglo–French intervention together with Stalin's fear that the Soviet Union's alliance with Germany would be reversed if Germany joined a possible anti-Soviet coalition, resulted in terms for an end to the short Winter War with Finland being agreed and signed on 12 March 1940.

The destroyers *Błyskawica* and *Grom* (background) in December 1939 following modifications to reduce their topweight. (Imperial War Museum, HU 76125)



The submarine *Wilk* at Rosyth on 11 November 1940. Note that the pennant number has been obscured by the censor. (Imperial War Museum, HU 76136)



A close-up of the midship of the destroyer *Piorun* late in 1940; the 4in Mk V anti-aircraft gun is prominent in the foreground and a Vickers quadruple machine gun can be seen at right. She was painted dark grey overall. (Imperial War Museum, A 2517)

Norway

Less than a month later, on 8 April, *Orzeł*, while on patrol south of Norway, sank the German troop transport *Rio de Janeiro* with the loss of approximately 200 of those on board. The bodies of some 50 Germans in uniform were seen and reported. Despite this, the Admiralty was taken by surprise the next day when Denmark and Norway were invaded by Germany. The three Polish destroyers were engaged in operations in the vicinity of Narvik and the Lofoten Islands in Norway, providing anti-aircraft defence, landing troops, escorting transports and shelling enemy positions. *Grom* was sunk with the loss of 59 crew at the entrance to Rombaken Fiord on 4 May 1940 by an He 111 of KG 100.

The German invasion of Denmark and Norway alerted the Swedish authorities, who towed the three Polish submarines at Vaxholm to the Naval Arsenal in Stockholm to enable them to be armed and fitted out for duties at sea. Lieutenant-Commander Krawczyk was sent to Sweden to assume command of *Sęp* and plans were drawn up to replace the commanders of the other two submarines. After the situation calmed down, however, all three submarines were disarmed once again and to prevent their escape were towed to Lake Mälaren.

The two Polish submarines in Britain were assigned to the Royal Navy's 2nd Submarine Flotilla at Rosyth. *Orzeł* left for her seventh patrol off Norway but was considered as lost on 8 June 1940 due to cause(s) unknown. Today, mining is considered as the most probable cause although friendly fire has not been excluded; disclosure of documentation on the matter being withheld by the British until 2040. *Wilk* was not successful either, and because of wear was relegated to training duties in August 1941.

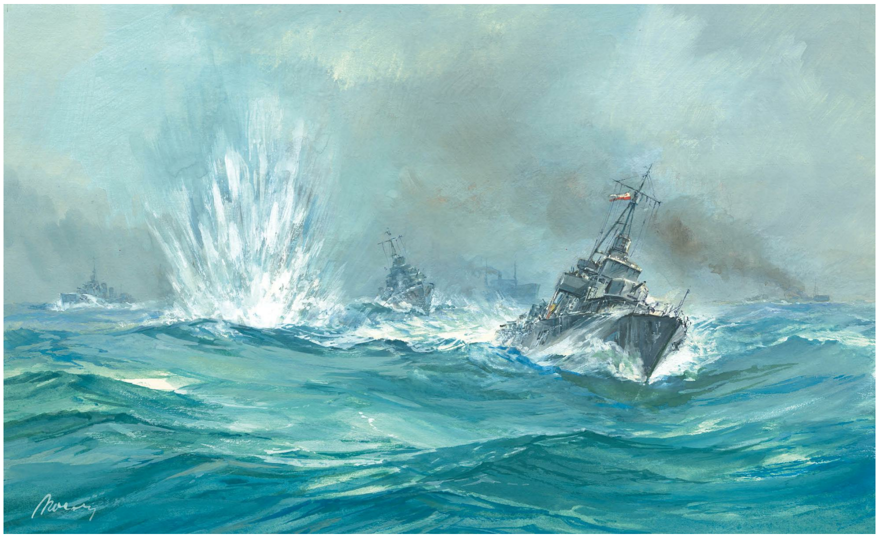
France

On 10 May 1940, German forces rushed into the Low Countries and towards the end of the month Polish destroyers were engaged in support of Allied defensive actions off Calais. *Burza* was damaged by two bombs dropped on 24 May. Six days later, *Błyskawica*, which had come under constant aerial attack during the evacuation of British and French forces from Dunkirk, towed off the British destroyer *Greyhound* after it was damaged by bombs. The defeat of France, in a campaign that lasted just one week longer than the campaign to defend Poland, thwarted hopes for a quick end to the war. The Polish Government in Exile was evacuated to London and over 27,000 soldiers (including pilots) from the Polish Army in France arrived in Britain and Palestine. In terms of the number of Polish military personnel who went on to serve in the armed forces, Poland became Britain's biggest wartime ally.

The German invasion of Britain seemed imminent at the time, which is why in June 1940 the Poles manned a dozen ex-Dutch and ex-Belgian fishing craft, which had been lying abandoned in British ports. The Trawlers' Group of the PND was formed (the craft were numbered P-1 to P-12) and detached to the Coastal Command Anti-Invasion Patrol, with which it carried out over 500 patrols until the craft were returned in October 1940.

Following the capitulation of France, numerous French warships were seized at various British ports. They were taken by force and were deliberately damaged by their crews, still angry at the Royal Navy's shelling of French ships at Mers el-Kébir on the coast of French Algeria on 3 July 1940. Free French naval personnel were not sufficient in number to man the warships in Britain, so a few were temporarily manned by Polish crews during mid-July 1940 as they were familiar with French naval technology. The warships – the largest one was the Bourrasque-class destroyer *Ouragan* – flew the colours of both nations and kept their original names. Unfortunately, each attempt at the use of *Ouragan* in operations in the North Sea and Atlantic Ocean during the winter of 1940–41 ended at a repair yard. *Ouragan* was returned to Free French Naval Forces on 30 April 1941, and modern Hunt II-class destroyers were manned instead.

Two converted French coasters which had found safety in Britain, *Médoc* and *Pomerol*, were in equally bad shape. Therefore, following a short commission in the PND, they were returned to the Royal Navy in October 1940; but because of a shortage of British officers, their Polish commanders remained aboard with a few of the crew in a training capacity. Both vessels flew the flags of Poland, Britain and France and served with the Coastal Command Anti-Invasion Patrol. *Médoc* was sunk on 26 Nov 1940 by a German torpedo aircraft off the Eddystone Lighthouse with the loss of 39 of the 87 men on board. *Pomerol* was handed over to its British commander in January 1941. Additionally, two submarine chasers (Ch-11 and Ch-15) were operated by Polish crews until February 1941. For a while the transfer of the French battleship *Paris* was considered by the Admiralty, but the idea was rejected by the Poles on the grounds that the battleship had practically no fighting value and would consume all the available manpower.



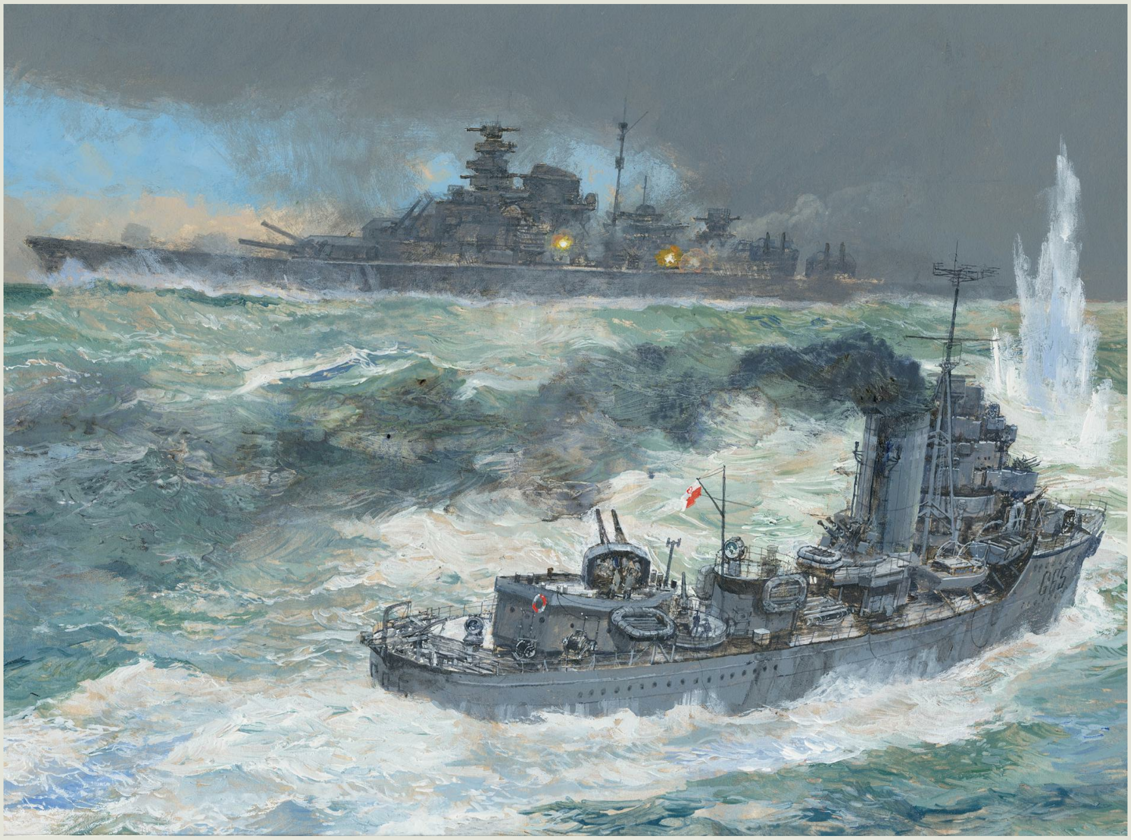
The oceanic escort *Burza* (foreground) and US Coast Guard Cutter *Campbell* attacking U-606 on 22 February 1943, as depicted in a gouache by Adam Werka. All of Werka's artworks were painted with attention to the smallest details based on factual knowledge of the subject matter, often as a result of having consulted with eyewitnesses to the actual events. (Marta Werka Collection)

The destroyer *Orkan* following completion. The HF/DF device on the mainmast was kept top secret for a long time. (Imperial War Museum, FL 800)

The Battle of the Atlantic 1940–44

In the mid-1940s the Polish Navy had a surplus of manpower: in addition to five warships with full complements, the training ships *Iskra* and *Wilia* reached western Europe with midshipmen and instructors. Also, numerous Polish merchant vessels with naval reserve personnel on board and Polish volunteers who had escaped from France were another important source of manpower. Therefore, it was possible for the PND to start the process of manning modern warships. On 3 May 1940 the G-class destroyer *Garland* (her British name courteously retained) was transferred to the PND. Three motor gunboats (including S-1 ordered by Poland in 1939) followed later in the summer, as did the newly completed N-class destroyer *Nerissa* (with the Polish name *Piorun*) on 4 November 1940.

G *PIORUN* VS *BISMARCK*, 26 MAY 1941



The German battleship *Bismarck* became the most hunted target for the Royal Navy after she sank the British battlecruiser *Hood* on 24 May 1941 in the Battle of the Denmark Strait. Because of the damage caused by three hits during the battle, *Bismarck* headed for Brest in northwestern France for repairs. Numerous Royal Navy ships were involved in the pursuit of the damaged battleship, but contact was lost. Rediscovered in the late morning of 26 May by a Royal Air Force Catalina flying-boat, *Bismarck*'s steering gear was disabled that evening by a torpedo dropped from a

Swordfish aircraft operating from the aircraft carrier *Ark Royal*. Bad weather and the coming of night made further air-spotting questionable, however.

The 4th Destroyer Flotilla, under the command of Captain Philip Vian and comprising *Cossack*, *Maori*, *Sikh* and *Zulu* accompanied by *Piorun* (commanded by Captain Eugeniusz Pławski), was detached from the escort of convoy WS 8 B to join in the search for *Bismarck*. The ships were ordered to maintain contact and to attack one by one to slow the battleship's progress. *Piorun* was the first to spot *Bismarck*, but because the crew had no previous experience of the tactics used by the 4th Destroyer Flotilla, the destroyer drew *Bismarck*'s fire as dusk fell in an attempt to assist the other destroyers launching their attacks. The action started at 2245hrs from a distance of 13,000 yards when *Piorun* was shelled by *Bismarck*'s 150mm guns and returned fire courtesy of the destroyer's 4.7in guns. Pławski's command 'Three salvoes in honour of Poland' went down in the history of the Polish Navy. For an hour *Piorun* attracted *Bismarck*'s attention by means of constant manoeuvring, closing to a distance of 8,000yds and making effective use of a smokescreen when *Bismarck* fired its 380mm main guns in addition to its medium artillery. Following a third salvo of the main guns, which missed *Piorun* by only 20yds, the Polish destroyer pulled away and retired to a distance of 6 miles, waiting 'in a queue' of British destroyers preparing to launch torpedoes and looking to regain contact with the enemy. At 0500hrs *Piorun* was ordered to refuel, which was undertaken reluctantly after a further two hours of searching. The Polish destroyer arrived at Devonport with 30 tons of fuel.

Destroyers in action

The first proven successful attack by the PND on a German submarine was performed by *Błyskawica* while escorting convoy SL/MKS.44 from Sierra Leone to Gibraltar. On 3 September 1940, in an area west of Ireland, the destroyer made five depth-charge runs on U-101, causing damage and flooding which forced the U-boat to interrupt its patrol.

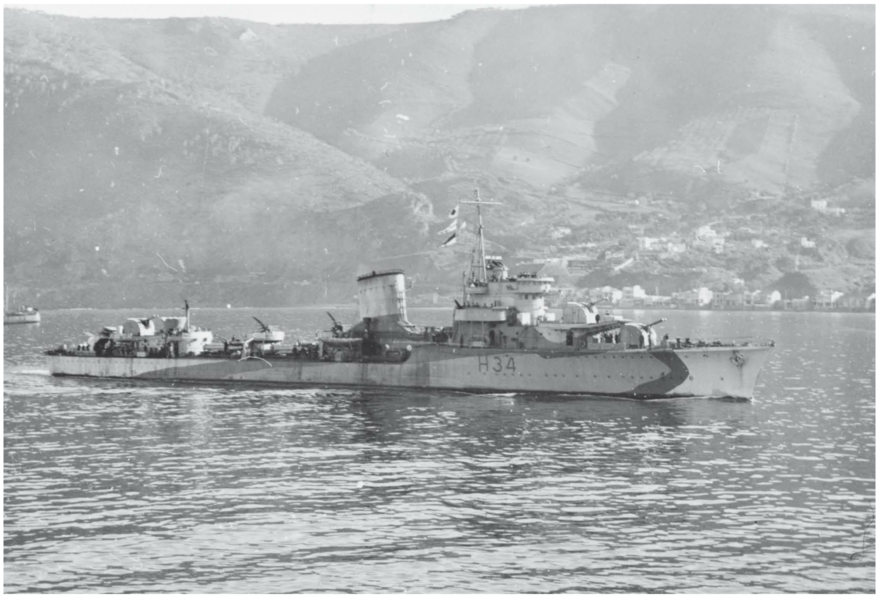
In September 1940 the Polish Destroyer Flotilla was formed and subordinated to the Royal Navy's Western Approaches Command. In April 1941 Polish destroyers were organized into the 14th Escort Group, distinguished by the white-and-red ensign painted on their funnels. Later, the destroyers were dispersed between various escort groups, then grouped again in November 1941 within the 25th Escort Group, which lasted for one year. The destroyers were allocated to various Royal Navy units according to their purpose:

- fleet destroyers: N-class *Piorun* (ex-*Nerissa*, transferred October 1940) and M-class *Orkan* (ex-*Myrmidon,* transferred 18 November 1942)
- oceanic escorts: *Burza* and *Garland*
- escort destroyers: Hunt II class *Krakowiak* (ex-*Silverton,* transferred 20 April 1941)*, Kujawiak* (ex-*Oakley*, transferred 30 May 1941)*, Ślązak* (ex-*Bedale*, transferred 17 April 1942).

At that time, because of her size and refit, *Błyskawica*'s armament was equivalent to that of the C-class anti-aircraft cruiser and she was rated as an anti-aircraft escort, operating alone or within small task forces (Iceland in 1941–42 and the Mediterranean in 1943). In 1944, *Błyskawica* was rated as a fleet destroyer and operated together with *Piorun*. On the evening of 26 May 1941, *Piorun* (commanded by Captain Eugeniusz Pławski) earned a place in naval warfare history while operating with the Royal Navy's 4th Destroyer Flotilla. Tasked with shadowing the German battleship *Bismarck*, for almost an hour, the Polish destroyer drew fire from the huge ship to facilitate the attack of other destroyers.

The Arctic convoys

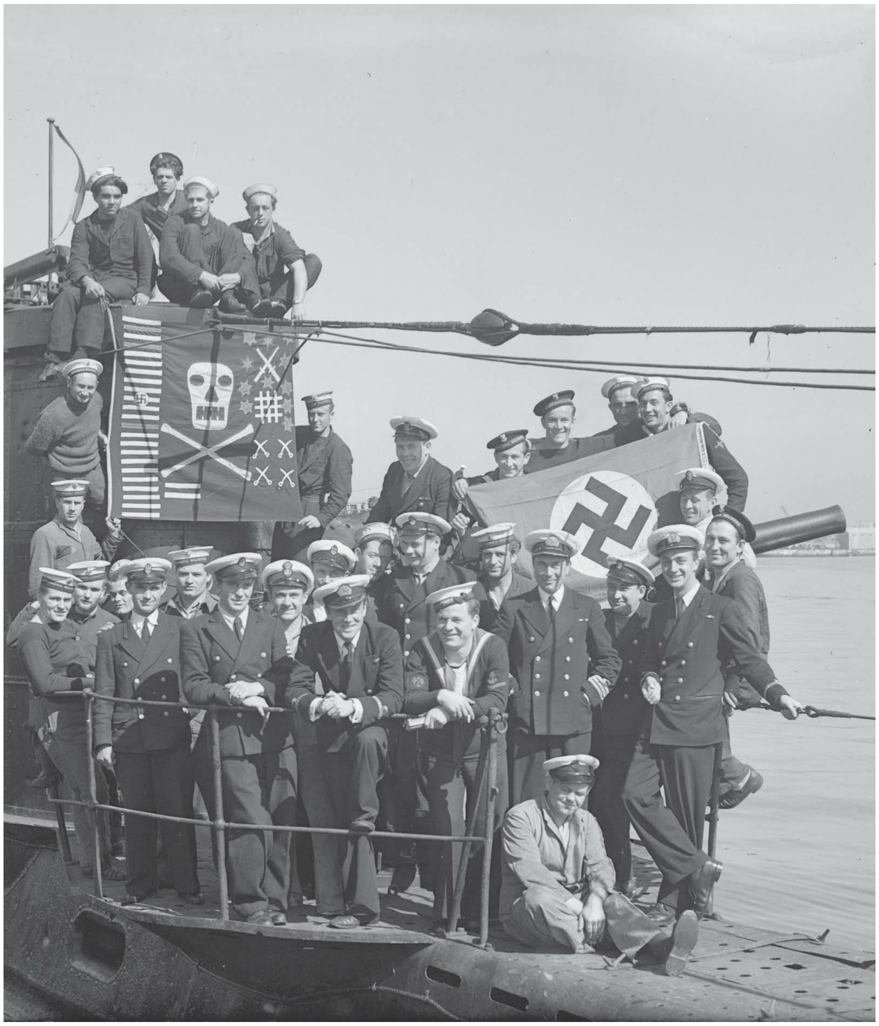
The German invasion of the Soviet Union on 22 June 1941 – Operation *Barbarossa* – was one of the turning points of World War II. Overnight, Britain gained a new ally – a great country with enormous resources – however the Soviet Union was still at war with Poland. Churchill thus revived the issue of Polish–Soviet relations within two weeks and in November 1941 General Sikorski met Stalin. An agreement was reached whereby Polish citizens and prisoners of war held in Soviet custody and in the Gulag penal camps would be released to form the Polish Armed Forces in the Soviet Union.



Błyskawica in early 1943 during her Mediterranean deployment. This photograph was taken from the aircraft carrier *Formidable*. (Imperial War Museum, A 21723)

The Soviet Union was in desperate need of supplies and Polish ships became involved in convoy operations on the new northern route to the Soviet Arctic, which ran in the vicinity of German bases in Norway. *Garland* (commanded by Commander Henryk Eibel) participated in the battle involving convoy PQ 16 – one of the hardest and most dramatic actions during this period of the war – which lasted almost a week. The convoy had left Hvalfjörður in Iceland on 21 May 1942 and become the target of heavy German air attacks which went on around the clock because of the summer midnight sunlight. On 27 May *Garland* repulsed six air attacks carried out over ten hours with 22 killed and 44 wounded – one-third of her crew. The ship's defences were reduced to one-third of their strength. Next day, *Garland* was allowed to leave the convoy and sail to Murmansk in an attempt to save those of her crew who had been seriously wounded. The ship stayed in the Soviet port for four weeks while a few dozen sailors recuperated in a local hospital. During this time, Murmansk was frequently attacked by

German aircraft – Polish sailors in the hospital remembered well the large, heavy-framed portraits of Soviet leaders hanging over their heads on tin hooks, vibrating after each explosion.

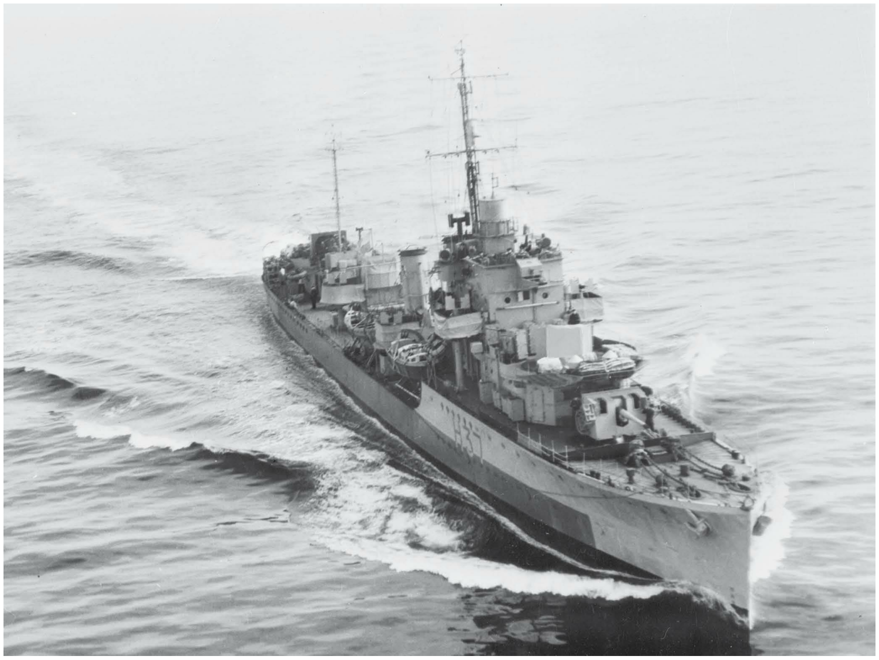


Officers and ratings of the submarine *Sokół* (ex-British *Urchin*) *with* their Jolly Roger ensign (flown to indicate a successful patrol) and a captured German flag on their return to Gibraltar, March 1944. Lieutenant Jerzy Koziołkowski, the commanding officer of *Sokół*, is the officer with his hands in his pockets. (Imperial War Museum, A 22525)

As regards the Polish submarine force, in December 1940 the Admiralty proposed decommissioning the aged *Wilk* and replacing her with three new-build U-class submarines. This was opposed by Lieutenant-Commander Krawczyk, who insisted on keeping *Wilk* in frontline service; this meant that the Polish manpower available was only enough to commission one new submarine, *Sokół* (ex-British *Urchin*), which was transferred to the PND on

19 January 1941. Unfortunately, *Wilk* suffered some serious engine failures and after lengthy repairs was relegated to training duties in August 1941.

An opportunity to keep *Wilk*'s crew busy was provided by the transfer of the ex-US Navy aged submarine S-25, which was handed over to the Royal Navy under the Lend–Lease Agreement, for training purposes. The Royal Navy, having renamed the submarine P551, transferred it to the PND on 4 November 1941. In Polish service P551 was renamed *Jastrząb*; but because the commanding officer (Lieutenant Romanowski) insisted that the submarine be used on operations rather than in a training capacity, it was sent out on patrol, during which it was damaged by friendly fire off Norway on 2 May 1942 with the loss of five crewmen. *Jastrząb* was subsequently scuttled as a result of the damage sustained in the incident. The surviving crewmen later served aboard the newly built *Dzik* (ex-British P-52), which was commissioned on 11 October 1942.



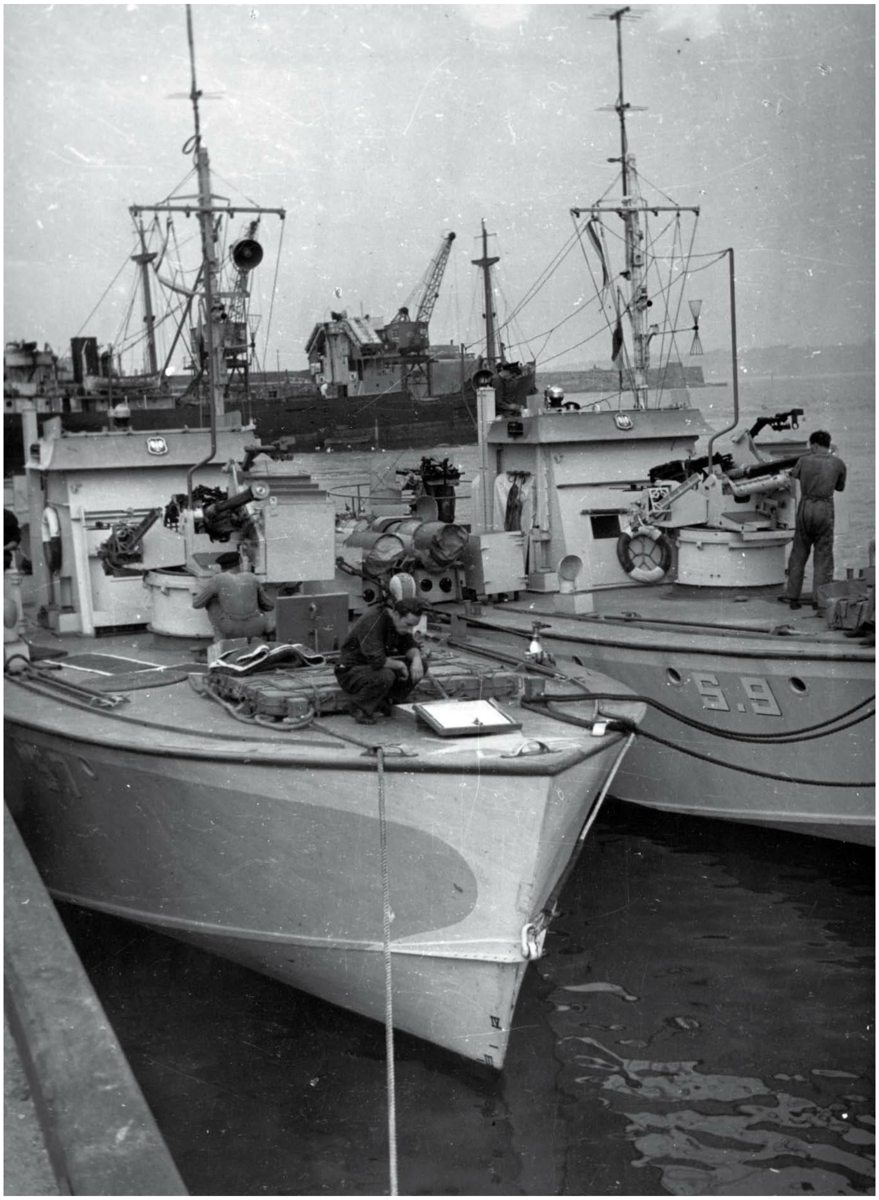
Garland in her final configuration in November 1945. She was returned to the Royal Navy on 24 September 1946, then sold on to the Dutch Navy in 1948 and commissioned as *Marnix*. (Imperial War Museum, A 30781)

The North Atlantic

In November 1942 *Burza* (commanded by Lieutenant Franciszek Pitułko), following a major conversion from destroyer to oceanic escort, joined *Garland* and *Piorun*, both of which were busy providing escort on the North

Atlantic convoy routes. They were soon joined by the newly completed *Orkan* and participated in the climactic phase of the convoy battles. On 6 December *Burza* successfully evaded a torpedo fired from U-758. When operating as part of escort groups B6 and B3 during the battles against convoys HX-217 and SC-116, the warship earned a reputation as an excellent 'left-winger' in the convoy formation. Dispatched on 22 February 1943 to support the escort forces assigned to convoy ON-166, *Burza* was operating on the left flank of the convoy when, following an initial attack by the Canadian corvette *Chilliwack*, depth charges were launched against U-606, forcing the U-boat to the surface. Once on the surface, U-606 was rammed by the US Coast Guard cutter *Campbell* and sank. The hydroplanes of the U-boat in turn damaged the hull of *Campbell*, so *Burza* took the American crew on board and towed the cutter until a tug arrived to bring her to port.

Eight months later and 1,000 miles to the north-east, on 8 October, while providing escort for convoy SC-143, *Orkan* (commanded by Lieutenant Stanisław Hryniewiecki) was sunk by U-378 armed with T-5 homing torpedoes. The destroyer, which had successfully evaded an acoustic torpedo fired from U-758 the day before, sank within a few minutes, taking with her 178 men – the biggest single loss suffered by the Polish Navy during the war. Only 44 survivors were picked up by the British destroyer *Musketeer*.



The motor torpedo boats S-7 (ex-British MTB-426) and S-9 (ex-MTB-428). (Author's collection by courtesy of Jerzy Miciński)

In October, *Burza* and *Garland*, acting within the Royal Navy's 8th Escort Group, provided support for the establishment of Allied bases on the Azores, which finally sealed off the air-cover gap in the Northern Atlantic, thus cementing the Allies' victory in the Battle of the Atlantic.

After the loss of General Sikorski (killed in a plane crash in July 1943) his successors were not able to manage (if it was even feasible to do so) the crisis caused by the discovery of mass graves of Polish officers executed by the NKVD (The Soviet 'People's Commissariat for Internal Affairs') at Katyn in

1940. The Soviet Union responded to revelations of the massacre by breaking diplomatic relations with the Polish Government in Exile and started to build a puppet Polish administration.

The Mediterranean 1941–44

Since the commissioning of *Garland* on 3 May 1940, which took place in Malta, warships of the PND had served in the Mediterranean in systematic rotation. They took part in almost every major operation, always under the threat posed by Axis air power in the region. At the end of September 1941, *Garland* and *Piorun* escorted the British battleship *Nelson* during the last of the three great convoy operations of 1941, to bring supplies to Malta. *Kujawiak* was part of the Malta supply operation in 1942, but the escort destroyer was lost to a mine while entering the Grand Harbour at Valetta on 16 June to assist the mined British escort destroyer *Badsworth*. The British warship survived, but *Kujawiak* sank with loss of 13 crewmen. *Błyskawica* (commanded by Lieutenant-Commander Ludwik Lichodziejewski) took part in Operation *Torch*, the Allied landing operation in North Africa conducted from 8–16 November 1942. For six hours on 11 November, the destroyer's defensive firepower repelled heavy attacks by Axis aircraft off the Algerian port of Bougie (Béjaïa), suffering over 200 hits and losing four crew and with 46 wounded in the process. This action made *Błyskawica* famous thanks to the accounts of Allied journalists who witnessed the fight.

Vice-Admiral Jerzy Świrski (first row, right) at the peak of his career with Admiral of the Fleet Charles Forbes at a swearing-in ceremony for Polish naval ratings at Glen Holt Camp in

Plymouth on 16 October 1942. Świrski was the founding father of the Polish Navy in its modern form. (Imperial War Museum, A 12345)

After nine months the warfare shifted to the opposite shore of the Mediterranean, where *Piorun* operated as part of Force H. On 10 November 1944, *Krakowiak* fought off no less than 14 German air attacks using glide bombs off Kalymnos in the Aegean Sea.

The weathered torpedo boat *Ślązak* arriving back at Portsmouth after participating in the Dieppe Raid on 19 August 1942. (Imperial War Museum, H 22634)

The Mediterranean witnessed a revival of Polish submarine operations conducted under the command of a new generation of young commanding officers who were graduates of the Polish Navy Academy, the French Navy's submariner courses and the Royal Navy's 'Perisher' course. In October 1941 *Sokół* (commanded by Lieutenant Borys Karnicki) joined the 10th Submarine Flotilla based at Malta at a time when the island was being besieged by Axis aircraft. *Sokół* sank two Italian ships, including the transport ship *Balilla* on 2

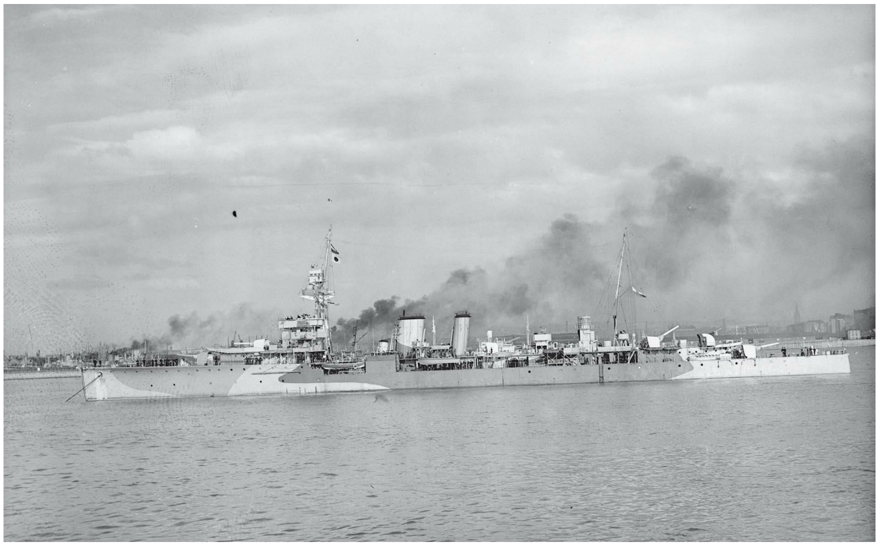
November, but was then damaged by bombs during a German air raid on Malta on 17 April 1942 and had to leave for Gibraltar and then Britain to undergo repairs. *Sokół* returned to the Mediterranean in May 1943 under the command of Lieutenant Jerzy Koziołkowski and joined the second Polish submarine *Dzik* (commanded by Lieutenant Romanowski). The so-called 'Terrible Twins' sank the German patrol ship *Möwe*, three *Marinefährprahme* (naval ferry barges), 17 ships (including two that were judged to be constructive total losses) and numerous boats through spring 1944, thus earning their Jolly Roger ensigns.

The last action of the PND's Mediterranean deployment involved *Garland* (commanded by Lieutenant-Commander Bolesław Biskupski), operating in the Aegean Sea as a part of Force A. On the evening of 18 September 1944, the oceanic escort spotted the snorkelling U-407 and initiated a hunt (together with four destroyers of the 24th Flotilla) which lasted all night. During the next morning, U-407 surfaced and was duly depth-charged and gunned from a short distance by *Garland*. Being in a tight turn, the Polish destroyer struck the bow of the sinking U-boat, receiving a 10m-long tear in one side.

Invasion of the continent 1944

Since 1940, Polish operations in the English Channel had been conducted by the three motor gunboats (S-1 to S-3) of the 3rd MGB Flotilla. The most renowned of the three was S-2 (commanded by Lieutenant Eugeniusz Wciślicki) which, on 12 June 1942 and acting alone despite the orders of the squadron commander, thwarted an attack by seven German E-boats on a British coastal convoy, damaging two of the boats and fooling the Germans into shooting at each other. The conduct of the Polish crews was commented on by one of their British colleagues: 'They are terrible fighters. Showing a German to them is worse than showing a hungry dog a bone.' In 1944 the three motor gunboats were replaced by five new Vosper MTBs.

Ślązak (commanded by Lieutenant-Commander Romuald Nałęcz-Tymiński) was the first of the Polish warships that participated in the Allied assault on the European continent. On 19 August 1942, the destroyer provided naval support as part of the Dieppe Raid (Operation *Jubilee*). During 15 hours of fighting, *Ślązak* provided fire support to the Canadian troops ashore and shot down four Luftwaffe aircraft.



The cruiser *Dragon* off Liverpool, 10 September 1943. Although the ship was transferred to the Polish Naval Detachment on 15 January 1943, the name was not finally accepted until 17 May. The Poles had planned to re-name the ship *Lwów* after Poland's major eastern city, captured by the Soviets in 1939 and subject to Soviet claims in 1943 but this was not acceptable to the Royal Navy, which threatened to cancel the transfer, so the Poles chose to retain her British name. (Imperial War Museum, A 19215)

The lessons of the Dieppe Raid influenced the success of the amphibious landing operation conducted on the beaches of Normandy less than two years later, which was attended by all but one of the Polish surface warships. The biggest of them was the cruiser *Dragon* (British D-class, transferred on 15 January 1943). Vice-Admiral Świrski requested the loan of the Dido-class anti-aircraft cruiser, but got the old cruiser instead – merely a floating artillery battery. Most of her Polish crew had previously served in the Pińsk Flotilla and after the Soviet Union's invasion of Poland in September 1939, they had been captured and either taken prisoner or sent to Gulag camps. They came to England only in 1942, after General Sikorski's agreement with Stalin. On D-Day, 6 June 1944, *Dragon* provided naval gunfire in support of the Canadian troops on the coast of Normandy, but on 8 July the ship was hit by a German manned torpedo (37 of her crew were lost) and had to be beached. As a result, the ship was considered a constructive total loss and scuttled for use as a part of a breakwater for the invasion port of Courseulles. *Dragon* was replaced by *Danae*, commissioned by the Poles on 4 October 1944 and renamed as *Conrad* (nom de plume of the Polish-born British writer, Joseph Conrad).

Ślązak and *Krakowiak* were deployed on the eastern wing of the British landings in Normandy and provided cover fire for minesweepers and landing craft. *Krakowiak* had the distinction of leading the flotilla of minesweepers on their journey from British ports to Normandy.

Błyskawica and *Piorun*, as part of the 10th Destroyer Flotilla, operated from Plymouth sweeping German surface ships and convoys from the Normandy landing area. During the night-time action on 9 June, the Allied flotilla intercepted the remnants of the Kriegsmarine’s 8th Destroyer Flotilla – three destroyers and one torpedo boat – off Ushant, heading from Cherbourg to Brest. Two of the German destroyers were lost in the daring battle that followed. On 13 June, *Piorun* along with the British destroyer *Ashanti* encountered seven large minesweepers of the Kriegsmarine’s 24th Flotilla off Jersey and sank three of them, until driven off by German coastal artillery fire.

CONCLUSION

For Poland, the outcome of World War II was harsh in the extreme: the country's eastern territories were seized by the Soviet Union, while those in the west of the country were seized by the Communist administration. On 5 July 1945 the Polish puppet government was recognized *de jure* by the British. Less than 1% of the Polish crewmen who had served alongside their British counterparts declared a willingness to return to their home country under the Soviet regime. The ships of the PND were gathered at the port of Harwich, while at the request of the Polish Communist government, the Polish Armed Forces in Britain were disbanded on 22 May 1946. The ships of the PND were handed over to the Royal Navy over the coming months.

The torpedo boat *Krakowiak* towing the surrendered U-2377 out to sea for scuttling during the Operation *Deadlight*, 28 November 1945. (Imperial War Museum, HU 55913)

The men of the Polish Armed Forces in Britain received the support needed to allow them to settle in Britain, Canada or the United States. Those who returned to Poland from Britain, Sweden or from German imprisonment were either expelled from the Polish Navy or jailed. Thirteen sailors, ranked from Ordinary Seaman up to Rear-Admiral – including the war hero

Przybyszewski, whose battery of 6in guns kept German destroyers and battleships at a distance off Hela on 3 September 1939 – were executed.

During World War II, the ships of the PND participated in the escort of 787 convoys and carried out 1,162 combat patrols. When operating from bases in Britain, the PND sailed over 1.2 million nmi (2,222,400km), sank two U-boats and nine surface warships (including one classed as ‘probable’) and damaged 12 others, sank 32 transports and shot down 20 aircraft. Five Polish warships were sunk with 404 men lost in action.

FURTHER READING

Budzbon, Przemysław, *Poland* in *Conway's All the World's Fighting Ships* vols 1906–1921, 1922–1946, 1947–1995 (London: Conway Maritime Press, 1985, 1980, 1996)

Davies, Norman, *White Eagle – Red Star: The Polish-Soviet War 1919–1920* (London: Pimlico, 2003)

Divine, Arthur D., *Navies in Exile* (Boston: E. P. Dutton, 1944)

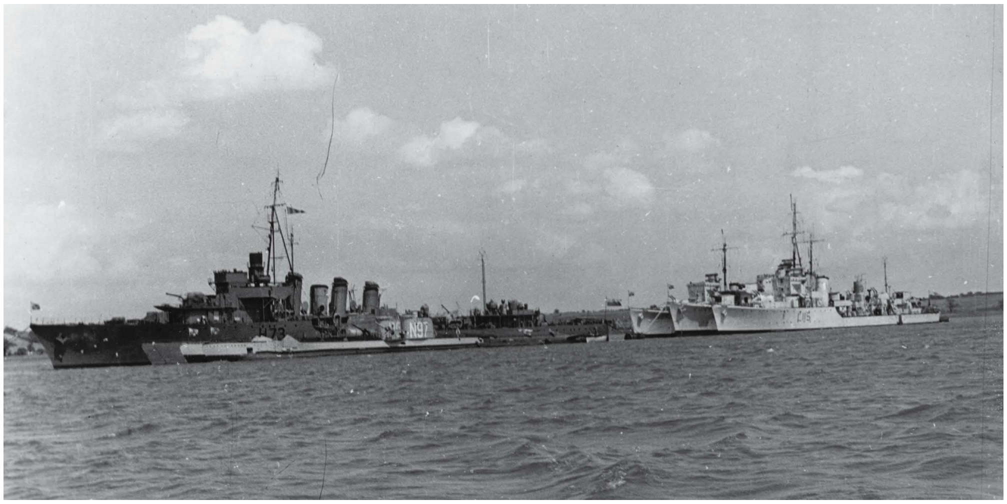
Hazell, Martin, *Poles Apart. Polish Naval Memories of WW2* (South West Maritime History Society, 2007)

McGilvray, Evan, *Poland and the Second World War 1938–1948* (London, Pen and Sword, 2019)

Moorhouse, Roger, *Poland 1939 The Outbreak of World War II* (London, Bodley Head, 2020)

Peszke, Michael A*., Poland's Navy 1918–1945* (New York: Hippocerne Books, 1999)

Stocker Jr, Donald J., *Britain, France and the Naval Arms Trade in the Baltic, 1919–1939: Grad Strategy and Failure* (London, Frank Cass, 2003)



The poignant sight of ships of the Polish Naval Detachment lying idle at Harwich in 1946. First row, from left: *Sokół* in the foreground, then *Dzik*, *Wilk* and *Burza* with an unidentified Flower-class corvette behind (the funnel is visible between the first and second funnels of *Burza*). Second row: *Krakowiak* in the foreground, then *Piorun* and *Ślązak*. (Author's collection by courtesy of Jerzy Miciński)

ABOUT THE AUTHOR

Przemysław Budzbon is a naval architect who worked on warship construction for the Soviet Navy in the 1980s. He has written widely on the history of the World War II Polish and Soviet navies for *Warship* and other European naval publications. He contributed to Conway's *All the World's Fighting Ships* series and his book *Soviet Navy at War 1941–45* was published in 1989. He has recently published two books on Polish shipyards from the post-1990 era.

ILLUSTRATOR

Paul Wright has painted ships of all kinds for most of his career, specializing in steel and steam warships from the late 19th century to the present day. Paul’s art has illustrated the works of Patrick O’Brian, Dudley Pope and C.S. Forester amongst others, and hangs in many corporate and private collections all over the world. A Member of the Royal Society of Marine Artists, Paul lives and works in Surrey.

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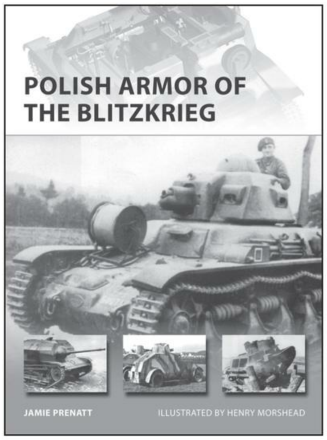
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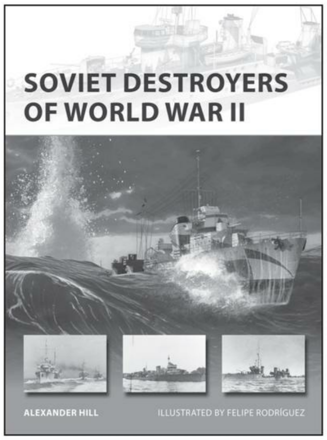
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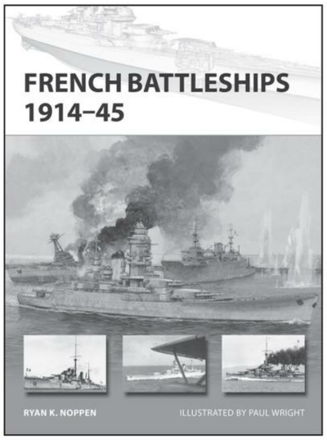
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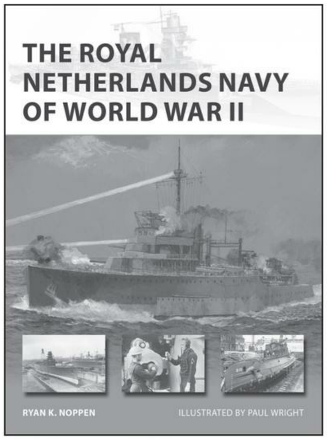
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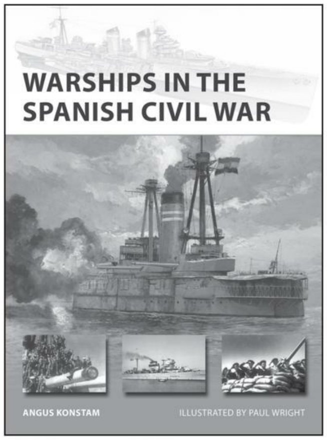
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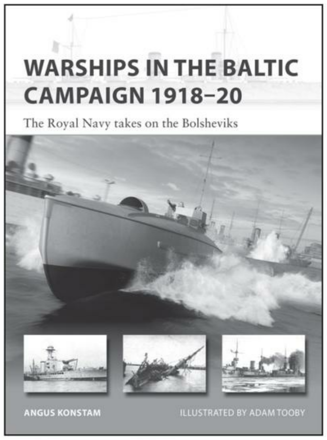
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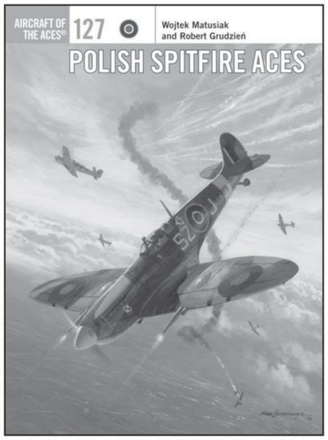
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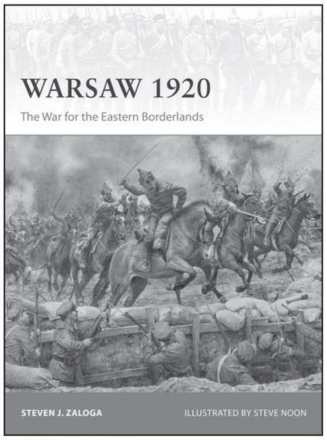
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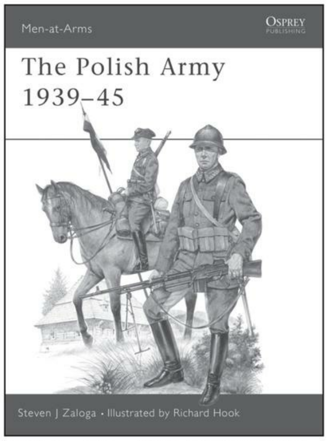
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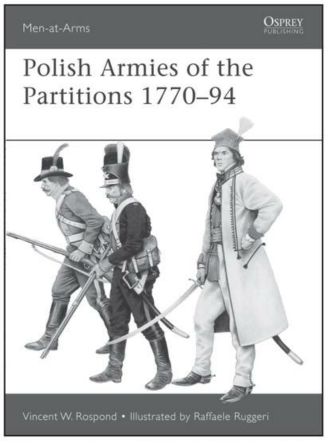
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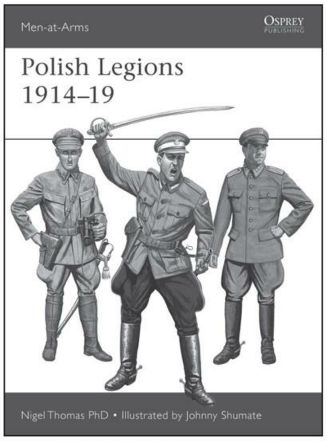
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